

SUPPLEMENT.

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FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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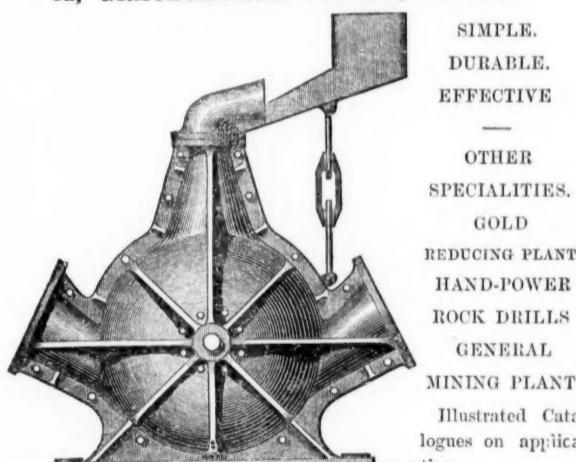
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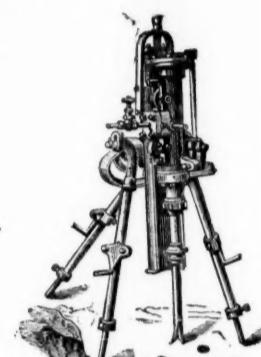
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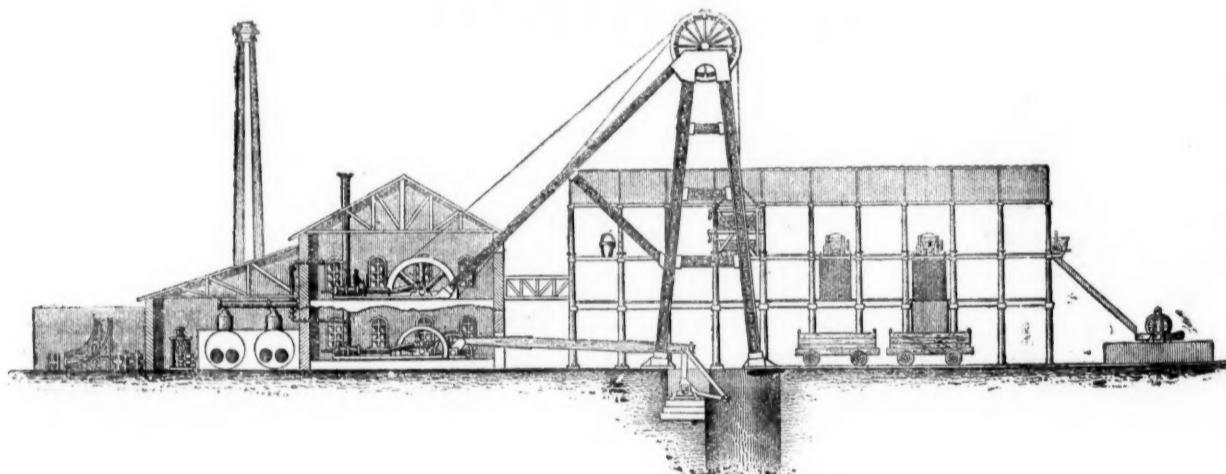
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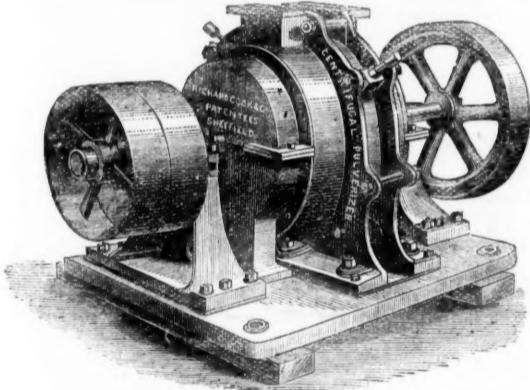
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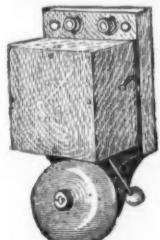
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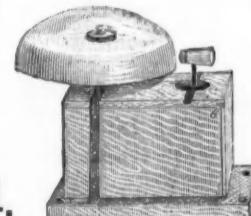
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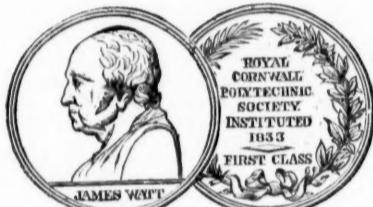
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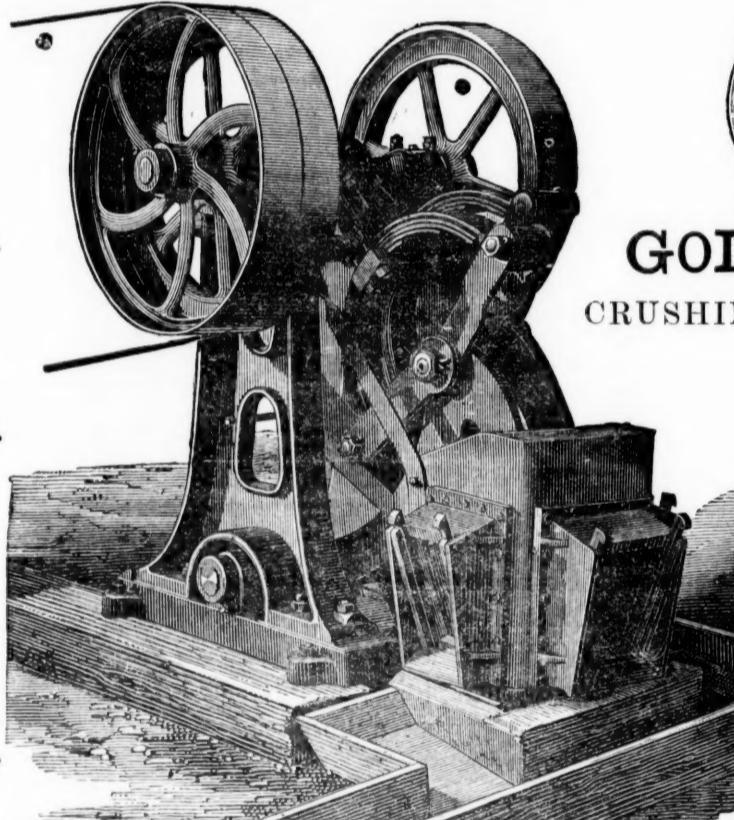
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Original Correspondence.

DIAMOND MINING IN SOUTH AFRICA—No. IV.
THE JAGERSFONTEIN MINE.

SIR,—Having given you a general outline showing the history and development of the Kimberley, De Beers, Du Toit's Pan, and Bultfontein mines, I now desire to direct attention for a moment from those mines to the Jagersfontein Mine. I stated in my first letter that I should devote a whole page to Jagersfontein, as that mine is in no way connected with those I have been dealing with before.

The Jagersfontein Mine is situated within about half an hour's ride of the fertile and pleasant town of Fauresmith, and the mine lies in a kind of saucer, surrounded by ranges of hills on every side. Unlike the other mines of which I have written, the spot is most picturesque, and there is an abundance of water, which flows in a torrent down a gorge, and is conducted without much trouble or expense to wherever it may be required.

Diamonds were found at Jagersfontein many years since, and the place was "rushed"—i.e., a number of persons went there, marked out claims, and commenced digging. They found a few diamonds, but not nearly sufficient to pay them for working, and so they gave it up, giving as their reason that diamonds were not to be found there in paying quantities. However, this did not deter a company which was formed in 1875 from sending down a working party under the management of an old experienced digger. This I think must have been at least two years after the first party of diggers had abandoned it. All that these parties, first and second, knew of the matter was that diamonds had been found at Jagersfontein, neither of them knew where, but as in all the other diggings the diamondiferous soil was found on the summit of a Kopje in the first place, and when the surface soil had been worked out there by digging out the soil straight down into the Kopje they thought that was the only way to pursue operations at this place. They selected a Kopje which looked as much like the original Colesberg Kopje (now the Kimberley Mine) as one pin is like another, and they confined their operations to that spot. Besides it had been a dogma of a gentleman who had been sent out by an eminent London firm to report upon the diamond mines of South Africa that it was useless to look for diamonds except near the brow of a little hill or Kopje, and as he had set himself up to be an authority the diggers had taken him to be one, and accepted his dogma as a settled scientific theory never to be disputed. The both parties found diamonds, but not sufficient to pay the working expenses. The company who sent out the second party finding it did not pay recalled them.

About three years or three years and a half ago diamonds were again found at Jagersfontein, and it came to the knowledge of some of the parties who were working in the old established claims that this was the case, and the diamonds found were exceedingly fine; they went out and, discovering the spots on which the diamonds were found, kept some parties there searching, and were fairly rewarded for their outlay. In a little time Jagersfontein was proclaimed to be a digging, claims were marked out, and terms were come to with the owners of the land. The Government sent down an inspector of claims; a plan of the mine was drawn, claims set out, and in a very short time every claim was taken up. Storekeepers and canteen keepers set about building places of business for themselves, and valuable parcels of diamonds kept coming into Kimberley for sale. The claim holders in the other mines pooh-pooh'd the whole affair, as it is the custom of diggers in old established mines to do whenever any new digging is discovered. My attention was first directed to Jagersfontein by seeing a parcel of very beautiful diamonds about the sale of which there was a dispute, and in reference to the transaction my professional advice was solicited. I then resolved to go down to Jagersfontein and see for myself, and I carried my resolution into effect.

On my arrival at Jagersfontein I found a good many of the old hands I had known as diggers on the Vaal River in Kimberley, Du Toit's Pan, and Bultfontein. They had all possessed themselves of claims, and some of the more knowing ones who had been watching the finds had begun to purchase what they considered to be good ground. A company had been formed to work one block of claims and had erected machinery and were working it, and were said to be finding fairly well. The parties who were doing the chief work at that time were Messrs. Miller and Kerr, the Messrs. Gompertz Brothers, the Messrs. Weil, Harrington, and a few others whose names I need not enumerate. But of all that were working Messrs. Miller and Kerr had the best machinery, and even that was of the most primitive kind. The machinery with which the Messrs. Gompertz were working had been discarded by the diggers in the other mines long before, and the fact was that very little work had been done. One might say that none of the ground had been done more than just scratched.

What I wanted to see was not how many diamonds had been found, or whether anybody had made a fortune, but what was the character of the ground. I had known Mr. M. Keyter, the inspector of the mine many years before, and I ascertained from him what the state of affairs was there, and having done that I went to see for myself. I soon found that the character of the soil was different from that of the diamondiferous soil in the older mines. There was none of that light yellow sandy surface soil I had seen in the earlier days of the other mines, and diamonds were not to be picked out of sand as they had been in the Kimberley, Du Toit's Pan, Bultfontein, and De Beers Mines for instance. Had I seen the mine without having had an opportunity of watching the working of the soil by machinery I think it more than probable that I should have gone away under the impression that diamonds are not to be found there. I, however, watched to see a wash up, and directly I saw the clean gravel thrown out upon the sorting table I was convinced that the soil was diamondiferous. It was when washed out precisely the same as that I had seen before in the other mines. Whilst I stood by the sorting table of the first claimholders I recognised the sorter took out two diamonds, and I could see that they were of the same quality as those in the parcel I mentioned above, about which there was a dispute relative to sale in Kimberley. The diamonds were pure white, but they have a complexion which I had never seen in the diamonds from the other mines, and there can be no mistaking the Jagersfontein diamonds for those either from the other mines or from the river diggings. Generally speaking, they are more like river tones.

I do not mean it to be inferred that I have seen none so white or of so fine a quality taken out of the other mines. For instance, than Mr. Porter Rhodes' diamond nothing could be purer or whiter, and that was taken from the Kimberley Mine. Placed by the side of that diamond all others which appear of the first water when looked at by themselves show colour. I have seen first water diamonds from all the mines, but then the diamond from each mine has a complexion or character by which it can be identified, but what I found to be characteristic of the diamonds in Jagersfontein was that there were no yellows, all were white, and taken as a whole they were of much finer quality than the diamonds taken from the other mines.

I remained there one week, saw wash-up after wash-up, and had a fair opportunity of judging. I saw clearly that the men in possession had not sufficient capital to work the mine, but that so soon as capital was brought to bear, and proper machinery employed, investments in that mine would well repay investors. Miller and Kerr were already building fine stables and getting a plant together, and I felt sure that the Kerrs were finding more than they cared to tell. I saw a parcel of theirs which they had taken in a few days worth a lot of money; and so, having observed for myself, and watched the action of the parties who held the claims, I wrote a report of my visit in the Diamond Field Advertiser, which some of my friends thought at the time would not stand the test of time. I was too sanguine, they said. Now let us see whether they or I were right.

Messrs. Miller and Kerr have since that time employed suitable machinery, and out of their claims have amassed large sums of money, and the other day, in one day's wash, they took out diamonds to the value of 2000*l.* The ground they washed came out of the corner of their ground adjoining the claims of the Central Jagers-

fontein Company, and is close to the claims of the Messrs. Weil Brothers, who I learnt from cablegram last week had sold 11 of their claims for 55,000*l.* The shares in the London and Jagersfontein Diamond Mining Company are selling at 60*s.* to 80*s.* prem., and are in good demand. A claimholder in this mine, who arrived in England last week by the Garth Castle steamer, received a cablegram on Saturday last offering him 3000*l.* per claim for a block of 20 claims, with the accompanying offers of 60*s.* per share in the Star Company Jagersfontein, and 37*s.* per share in the Fauresmith Company. The parcels of diamonds which come from Jagersfontein into the hands of dealers in Europe are admitted to be quite equal to any that ever the Brazilian mines produced, and I venture now to predict that as soon as sufficient capital has been invested in machinery, plant, and labour in working the Jagersfontein claim they will find diamonds in quality and quantity excelled nowhere.

South African Office, Upper Thames-street. R. W. MURRAY.

BRAZILIAN NEWS.

SIR,—We have had our elephant. The Emperor has been and seen the nakedness of the land, which all the whitewashings and fireworks could not hide. The Emperor must surely think there is something wrong when he makes comparisons between his own and other countries. Here he finds a population who have lost the habits of industry as individuals, and amongst whom all enterprise has apparently died out, and always looking to the Government or the foreigner to assist them. Pretty nearly all of them have a rich mine or tame mule to sell, and when they have neither they are poor indeed. But when the mind is inspected it is found to be valueless, and the less said about the mules the better; but these things serve them to talk about while they are making their straw cigars, which they are generally doing all day long. This state of things has been brought about by the law of Paráíba and slavery.

The Emperor visited many mines, and amongst them Morro Velho, Don Pedro North del Rey, Passagem, &c. At Ouro Preto, at the School of Mines, he was treated to a lecture on Gold, and his attention was most unfairly called to the loss at the Morro Velho Mines of the St. John del Rey Company. It was probably natural for the French director of the School to endeavour to prevent the Emperor having too favourable an opinion of English mining enterprise in Brazil.

It certainly was a most unfavourable time for the Emperor to visit this establishment, as the "admixture of killas and quartz" still continues, although always declared to be "temporary." At Morro Velho and Congonhas this is read as the giving out of the lode, and this is the opinion of "Verdad," who has had good means of judging. In the opinion of others it means the "bad way of working the mine." Whichever it is it is most serious for the shareholders. The splendid hospitalities must have been very costly, and it must be a source of congratulation to the shareholders that under the present depressing circumstances the managers spared no expense to entertain the Emperor. At Don Pedro North del Rey the Emperor breakfasted, and made particular enquiries of Mr. Heilbuth if that company had any slaves of their own. The emphatic way in which Mr. Heilbuth replied—"N-e-v-e-r, your Majesty," seemed greatly to impress his Majesty with the respectability of that company. The new ram machinery was working splendidly, and the Emperor left the establishment for Antonia Pereira, expressing his great satisfaction at his reception, and wishing success to the new machinery.

Reports are rife of a favourable discovery at Pitangui. At Pará they are progressing favourably with the Rego. Unfortunately for the Santa Barbara Company Capt. Thos. Richards, under whose management the mine made such favourable progress when Mr. Hilek was director, has suddenly left. At Passagem some very pretty machinery has been erected, and work will now go on there with spirit and enterprise directed, as it is, with intelligence and experience. At Descoberto satisfactory progress is being made with what is necessary at surface. There is always great excitement in jacutinga mining, as a stroke of the pick may uncover great wealth at any time—not so with rock mines. Progress is being made with the subscription to the rail from Ouro Preto to Carandahy. Senor Joao Manlevado has some thoughts of turning his iron fabrica into a joint-stock company; he has a provincial guarantee of 7 per cent. upon the capital required.

SEBRATO.

BRAZILIAN GOLD MINES.

SIR,—The statement from one of your Brazilian correspondents, in last week's Journal, regarding these mines has caused great consternation to the shareholders, and I feel sure the same must have escaped notice before insertion. I sent a copy of the manager's last report from the mines, since which we have received no further information; in fact, the same is not due until about June 18.

Regarding the floating of the company the accompanying statement of accounts will surely verify that the whole of the capital applied for has been fully subscribed, and at present date there only remains 600*l.* arrears of call, which by arrangement will be paid during the current month. Under these circumstances the sentence of "a deception has been practised on the Londoners—if, indeed, the shares were floated" is very unfair to the directors and myself.

GEORGE C. HARVEY, Sec.

[In forwarding the statement of accounts to be presented at the meeting on Thursday next the directors explain that, although prepared in the form of a balance-sheet, it is in reality a record and synopsis of the receipts, payments, and investments, with the addition of sundry small liabilities—the four last items on the debit side of the account (420*l.* in all). It was the end of July last before the working operations were commenced at the mines, and, inasmuch as no returns have been made, a profit and loss account is superfluous. The first issue of capital was 40,000*l.*, the whole of which has been subscribed for; and of this amount the balance-sheet shows that at the close of the financial year 38,900*l.* had been paid up, leaving 1100*l.* due on calls at that date. Out of this sum the San Antonio Estate and Mines have been purchased for 20,000*l.* The cash in bank, &c., amounts to 12,327*l.* 12*s.* 9*d.*, and in the hands of the agents of the company at Rio there is a balance of 433*l.* 17*s.* 5*d.* Mr. W. Greig, the vendor, owes the company 318*l.* 14*s.* 3*d.* in respect of his proportion of agreed costs incurred in Brazil, against which the company hold 4000 shares as collateral security. The other assets consist of plant and machinery, animals—mules, buildings, and office furniture. There are also sundry items of expenditure incident to the establishment and working of the company, all of which are fully set out in the balance-sheet, which is unusually clear and explicit.]

MINING IN BRAZIL—ST. JOHN DEL REY.

SIR,—In view of the fact that the time is just at hand when all the remarks that I have made in connection with the St. John del Rey Company may be verified. I want to ask one or two questions, and I suggest that some shareholder repeat them at the meeting:—1. Why, since the new hoisting works have been put in motion, the mine has not given the results that were anticipated in view of the thousands of tons of ore that were reported to have been quarried during the time of the erection of the works? 2. What is the quantity of quarried mineral existing in the mine at present? 3. Has the cost been fairly charged since the new hoisting gear was set to work?

The St. John del Rey Mine has been failing for a considerable time; the fact has been known to at least one director, as he publicly stated that he spoke from a knowledge of the mine (see report of last general meeting). No mention has been made of the pinching out of the vein of good ore, the decrease in earnings being always attributed to a "temporary admixture of killas," when it was well known, and here much talked about, that it was a permanent falling off. The decline has been distinctly marked; and, question 4, I would ask if this was not made the subject of a report, or embodied in a report made by the mine engineer and captain some three years since, although, as I understand, it was not made public? 5. What has become of the important strike which was telegraphed to London a short time ago? And, 6, why was the engineer, Captain Dale, transferred to Cuiaba three years ago, directly after his report on the condition of the mine?

I do not mean to say that the St. John del Rey Mine is entirely worked out some good dividends may be earned yet. The com-

pany no longer rules the Province, and I do but repeat the general expression of Englishmen and intelligent Brazilians when I say that they have pursued a policy towards new comers by which they have made themselves liable to very critical inspection, have forfeited the friendship of new companies, and the right to expect business courtesy from their competitors, who will take, when they are wanted, their officers and men not bound by contract and glad enough to get away from both the mine and the management.

VERDAD.

San Antonio do Rio Acima, Brazil, May 4.

ST. JOHN DEL REY.

SIR,—I was glad to read the letter in last week's Journal from Mr. J. R. Partridge, and find that, according to his own showing, his only transaction in connection with the company was to sell 300 shares, and thus, I presume, sever his interest in the undertaking; on the other hand, my only transaction has been to buy shares, and I for one strongly object to have my property damaged by local mine managers reporting upon properties in which they have no stake. This unpleasant criticism has been growing of late—more particularly as regards Brazilian undertakings—as apart from the above concern the Brazilian Gold Mines have not been spared, and I am convinced that there must be some interested motive in view, probably to frighten or influence country shareholders. But as far as I can gather, from official advices received from the "other side," and enquiries made in London, there are no grounds for any alarm, as the management abroad is conducted by experienced practical men, and at home, as can easily be ascertained, by sound and highly respectable gentlemen.—*London, June 16.*

INVESTOR.

EUREKA (NEVADA) MINING DISTRICT.

SIR,—I beg to hand you my usual budget of news from this mining centre:—

The last and 67th dividend of the Eureka Consolidated brings \$25,000 more into the pockets of the shareholders, and a grand aggregate of \$4,590,000.

As was announced at the time, the Richmond Company has recently resumed sinking their main shaft. The last 200 ft. of the shaft had cut through the limestone zone and penetrated the quartzite. About 50 ft. has been made since the shaft was resumed. Strange to say, the barre quartzite has given way to an almost pure white quartz, carrying a fair amount of metal. Assays average \$30 per ton. It is a magnificent article of flux, and now the ore taken from the shaft is being saved in the dumps for shipment to the reduction works. This is an entirely new feature in mining on Ruby Hill, and may add untold wealth to the mines of that portion of our district. Further developments will be watched with no little interest. If the whole quartz belt should change at that depth to paying quartz our mines would become practically inexhaustible.

Speaking of the new find of white quartz in the Richmond main shaft, the Ruby Hill Mining News says:—A few days since almost a pure white quartz was struck, which carries considerable metal, and is the best article of flux yet found in the district. Miners say it resembles that found in the Banner Mine at Grass Valley. It is a new feature on Ruby Hill, and has excited a good deal of speculation among miners."

Albion is still a popular favourite, having advanced yesterday to \$3.60. It is now pretty generally conceded here that it will not fall back much between now and the trial.

About 95 men are now employed in the Albion. A number of new cars, cage, &c., have been received lately, and, judging from the preparations, it is the purpose of the management to push work in the mine.

Wales Consolidated got as high yesterday as \$1.75.

London, June 16.

RUBY HILL

GOLD MINING ASSOCIATION OF CANADA.

SIR,—With regard to the letters of Mr. H. W. Higgins and that of "Scrutator" in last week's Journal, I can only say that having been present at the annual general meeting of this company I think the shareholders are under a deep debt of gratitude to Mr. Higgins for his plucky efforts in trying to elicit every possible information for their benefit generally. I think it is a pity you had not space to insert the copies of the letters of Mr. Stewart as requested by Mr. Higgins, as their contents are a very strong point against the *bona fides* of the letter of "Justice" of April 30, which appeared in the *Mining Journal* of that date. If "Scrutator" is in possession of any facts against the *bona fides* of this concern, I hope he will let us have them.—*June 10.*

A SHAREHOLDER.

THE MOSELLE MINING COMPANY.

SIR,—It has been concluded, from the prospectus published in last week's Journal, that Mr. John Kendall accompanied Herr Schneider in his inspection of the Carden Mine on May 24, 1881. A more careful investigation will show that this date does not apply to the inspection of Mr. John Kendall, which was in December, 1876. It is to this that Herr Schneider refers, as will be seen by reference to the footnote to Mr. Kendall's report, which is as follows:—"Since this report was written a shaft has been sunk 195 feet under adit, and a level is being driven at that depth to get under the rich ore ground mentioned in report. This drive is now in a lode producing rich silver-lead." It is obvious that a shaft of 30 fathoms could not have been sunk in three weeks, as is implied by the misconception referred to.—*New Broad-street, June 15.*

A. H. CARLEY,

Secretary pro tem.

MARBELLA IRON ORE COMPANY.

Sir,—Notwithstanding the recent rise in value of these shares I strongly advise my co-shareholders to stick to their holdings. I believe the shares will go much higher, as latest advices from Spain state the mine is looking extremely well, turning out abundance of ore, which is in strong demand for steel making. Sales forward for a very considerable period have been made, and a good dividend is more than earned already. I just learn the directors contemplate issuing a special report early next month, and it is very probable an interim dividend will be declared in July. This matter is to be considered at the directors' meeting about to be held.

MANCHESTER.

SILICATE OF GOLD, &c.

SIR,—The interesting and important communication of Mr. Kagenbusch in last week's Journal I hope will attract a good deal of attention. I know it is the fashion to curl the lip slightly at such notions, but it will presently have to be generally acknowledged that there is not only silicate of gold but antimonide, arsenide, telluride, and sulphide of gold; also and that these several states of being are not only very common to pyritic minerals but that in them is a continuity of change. That the causes of such changes are not fully understood takes nothing from the fact itself. It is fact. The prince of geologists (Lyell) has said—"The forces now operating upon the earth are the same in kind and degree as those which in the remotest times produced geological changes." It is feebly attempted to deny this by some aspirants at distinction. The director-general of the Geological Survey I believe accepts it as positive truth. There are, however, comparatively few who accept the notion that the constituents of rocks (the minerals) are subject to continual change, if not always to increase. It used to be held that the less is included in the greater. If so considered, the increase of rock-masses must necessarily imply an increase of individual minerals constituting the rock-masses. In fact, metamorphism must be admitted more or less by all. It must be allowed that a rock in one state or kind has been changed into another state of being. Sandstone into quartz-rock, for example. Let it be admitted that there are internal movements in minerals and rocks, and metamorphism becomes no theory, but fact. That no one is able to appreciate such facts by measurement of any kind does not eliminate the fact from existence. The fact remains that changes are ordinarily going on and on.

It is not at all improbable that change is the great maintainer of coherence in inorganic as well as organic substances. A boy and the man are not distinct forms of being. The boy has grown older, it has been said, and a modicum of time only has made all the difference; whereas Time, as a factor, had nothing whatever to do with the change. That gold, silver, and other metals change their states of being is not owing to lapse of time periods. The changing forces exist altogether independently of time periods. Probably there is no absolute stillness in natural objects, if in artificial objects. The most delicate visual faculty is more like absolute blindness to

ing very much, as if naming a thing was equivalent to understanding all about it. The father who names his child seldom pretends to know how the little bones got into it. Those who are so fond of looking into the dark distances of the past, and striking a match (and that a bad one) for moment in that darkness, hardly do more than make darkness faintly visible by their puny attempts at illumination.

A writer recently struck a dim light in the past darkness. He wrote an "article" on what he saw, or fancied he saw, brought it to the light, and it vanished. But he had written. He could write, and write well. Though he knew this writing to be error he had not the courage to unwrite it, but let it pass with the observation "What I have written, I have written." The writing related to spontaneous movement in inorganic substances. How difficult it seems to some folks the saying "I don't know." To deny a fact because it is incomprehensible is simply folly. If it be fact that most metals expand on taking the solid form, surely it is not less a fact because the *modus operandi* or formation forces are incomprehensible?

It is all very fine to speak of the "ordinary conditions of matter," it is just at this threshold of enquiry that the observer has to pause; we know next to nothing about them. The beginning seems never to have been begun at. No analyses of relationship of matter, worthy of name, have yet been made. The time-table of Nature at present mentions very few stations to stop at on her lines of transition. It is really very cheering when now and then a little progress is made. I have a crystal of gold (not a gold crystal) pseudomorphous after quartz; a silicate of gold, I believe, has effected this interesting change.—London, June 16.

T. A. READWIN.

NOBEL'S BLASTING GELATINE.

SIR,—On June 8 and 9 we witnessed very interesting experiments made by Mr. Parry, the instructor in the use of this class of explosives, in the employ of Nobel's Explosive Company, Glasgow, at the Caleley Quarries, North Wales, with the new explosive called Blasting Gelatine. This very powerful explosive is said to be a compound of nitro-glycerine, with a special quantity of nitro-cotton. In appearance it somewhat resembles a thick jelly, of a brownish colour; and its disruptive force is said to be at least 50 per cent. greater than that of dynamite, which data was as nearly as possible carefully adhered to in all experiments made by the company's instructor. Let it be observed that there were no especially drilled holes made for the occasion; on the contrary, the quarry was worked from floor to floor, or galleries as they are sometimes called, and the miners' holes taken advantage of as the miners were come across, preparing to blast in their respective places with the usual explosives—dynamite, gun-cotton, &c.

The first experiment was made in a heading driven in slate-rock, on floor 2, under the clay slant, as it termed, in a hole 15 in. deep, by $\frac{1}{2}$ in., remnant of a 23 in. hole, which had previously been charged with dynamite, and blasted unsuccessfully by the miners thereon employed, and, with the object of casing the 15 in. hole, the miners had drilled a 22-in. hole, which was to be fired first, and the 15-in. hole to follow. Having learnt this, and to test the strength of the gelatine outright, the arrangements of the miners were reversed; the 15-in. hole was to be fired first, and the 22-in. hole was to follow. Into the hole $1\frac{1}{2}$ pellets, weighing, I presume, about 3 ozs. of gelatine were inserted, which was exploded by means of a dynamite detonator, with a dynamite pioneer, the company, it would appear do not at present think it advisable to issue for this purpose any other than the dynamite detonator. The charge being gently tamped with a wooden tamper or rod it was fired, which exploded with a tremendous report. On returning to examine the result it was found the new explosive had completely and most thoroughly done its work. So thoroughly and clean the work had been done that the miners stood looking in astonishment at one another. In the same heading two more experiments immediately followed in a 32-in. hole and a 22-in. hole, by $\frac{1}{2}$ in. Into the former hole $1\frac{1}{2}$ pellets were put, and into the latter 1 pellet only. These two charges were fired in the same way as the first experiment. The result in both cases was most satisfactory. To do more and better work was impossible.

The next trial came off in another heading on the same gallery. The rock in this case was hard and of schistose character. The respective holes were 24 in. and 18 in. in length, by 1 in. In the former $1\frac{1}{2}$ pellets were put in, and in the latter 1 pellet. After the explosion no results were shown in either case. Both holes were recharged; the 24-in. hole with 2 pellets, and the 18-in. hole, with 1 pellet. The one pellet charge did its work thoroughly, but the two pellet charge showed no results. At this point one of the miners employed on the heading told Mr. Parry, the explosive instructor, he would do the work with a charge of $2\frac{1}{2}$ pellets of dynamite; $2\frac{1}{2}$ pellets of dynamite were put in, and the charge was exploded, but with no results. A charge of $3\frac{1}{2}$ pellets of gelatine was next put in; the charge on being exploded showed again no results. The hole at the outset had been found fault with, and it was clear by now it was an ill-planned hole, being too flat for the work assigned. This hole, therefore, was given up, and wisely so too. In the next heading went to a lode was got 18 in. long by 1 in., drilled in very hard rock of a cherty nature. A charge of 2 pellets were put in, which did the work intended well. This last charge completed the experiments of the first day. Although we returned with a motive to the smoke immediately each blast went off, and remained in the smoke for a couple of hours, yet we experienced no headache, which is too frequently the case under similar circumstance in smoke from dynamite.

On the following day a series of experiments were again gone through, which proved equally as successful, if not more so, than those of the previous day, substituting on this occasion tonite detonators, instead of dynamite with dynamite primers; on the whole, the experiments were highly satisfactory. Once the mining world is made acquainted with the merits of this wonderful new explosive dynamite, in my opinion, will very soon be driven out of the market. Ffestiniog, June 11.

AN OBSERVER.

LEAD REPORT.

SIR,—The strong demand that existed a short time ago has quite faded away, and to effect sales lower prices in every case have to be taken, as the manufacturers complain sadly of the want of orders. Newcastle-on-Tyne, June 15.

STOCKS,

COST BOOK, MINING SCHOOL, SOUTH DEVON DRESSING.

SIR,—If nothing else has been gained by the correspondence under the above heading in the Journal, it has clearly proved the advantages of cost-book management over that of limited companies. Under the same resident agent, with Capt. T. Trevillion as manager, the same mine, with a lode only worth 20/- per fathom worked as a cost-book mine, paid dividends at the rate of 40 per cent. for years upon the whole capital of the company. As a limited company, with a continuous lode worth 50/- per fathom, or 30/- more value than when paying 40 per cent., the mine pays no dividends, and barely pays the cost of working. The royalty under the cost-book was 1-15th, but under the present limited company it is 1-24th. Under the cost-book there was a committee of practical shareholders, whose experience showed them that the agent under Capt. Trevillion was very useful in that position, but totally unfit to manage. Had the hints thrown out at the time the purchase was made after the death of Capt. Trevillion been acted upon, the unfortunate sacrifice of ore might have been avoided. There are scores of agents, who as second men, acting under a good practical manager, are most useful and deserving agents, who would as managers destroy any mining property. It is not their fault if they are misplaced as managers. A practical man as bold and as determined to have right done as Capt. Trevillion would quickly restore the South Devon Mine to its position as Brookwood or large dividend paying. Though no longer a cost-book mine, why not adopt again the principle of such visiting agent. Give him the management, releasing the present agent from his awkward position of responsibility, which he feels and knows better than all other men he is unfit for, and would gladly coincide with such an arrangement. Do not reduce his salary, and do not hesitate to pay the second man as manager well, and the board of directors will have the thanks of the shareholders for commencing with a saving of 500/- a month, and by a very trifling outlay upon one or two points west more than double any returns that can at present be made, and give such dividends as will satisfy every shareholder far

better than any reporting upon rich discoveries east or west. I partook of the substantial dividends under Capt. Trevillion's management of Brookwood, and gladly would I share in such again through any London office.—London.

A SHAREHOLDER.

NORTH CORNWALL MINING ENTERPRISE.

SIR,—In how many instances do we not see failures from want of sufficient capital fully to prove and work mines which present good shallow indications of rich mineral deposits in depth—such mines are numerous in both Cornwall and Devon. This remark will apply in respect of several mines in North Cornwall, particularly to one—Pengenna Silver-lead Mine, in St. Teath, which contains lodes carrying very rich ore, but which have never been proved in depth. The Old Treburgett Mine, notwithstanding it contains abundant evidence of rich ores, has never been properly worked all through (with the exception of the last working), the want of sufficient capital and the last working under a limited company was discontinued for reasons unconnected with the value or prospects of the mine. This is not the question to which I wish, however, to direct your attention. It is this—provided adequate capital is raised in the first instance, and that applied with judgment in working mines in the mineral belts of strata in North Cornwall, am I justified in believing that success will attend the operations? Some 28 years ago much attention was drawn to the district referred to, when the late Mr. Proctor, of Launceston, and others formed several companies to work the silver-lead lodes in St. Teath and St. Kew. They were weak companies, and all they did was simply to spend money wildly above ground in erecting engines without having first sunk on any lode 20 fms. deep. Your correspondent, Capt. George Spargo, in your issue of last week, says that some of the lodes of this district yield antimonial silver ore, realising over 85/- per ton. This is perfectly correct, and, if I am not mistaken, he refers to a mine in the parish of St. Teath, formerly known by the name of Wheal Sampson, or Bound's Cliff. It was here that in driving a level near the face of the cliff the miners cut into a small bonanza of very rich antimonial silver ore. I have seen the workings at Wheal Sampson, and also at the adjoining mine, Tregardock, the lodes of which are well defined masterly silver-lead lodes; but here again the parties who worked these mines last have never reached the intersections of the lodes with each other or with cross-courses, which pass through both mines, and where, as a rule, the largest deposits of mineral are found. They have driven towards such intersections, which are points of the greatest importance whenever the mines are again worked, as they fully deserve to be. There is one thing, however, I hope for—that when mining is commenced in this district it will be based upon honest and truthful statements—nothing more need be said to induce capitalists to come into the district. As to Great Onslow Consols, in St. Beward, Mr. Gregory, in his letter to the Journal on the subject, says that he differs from me as to the manner in which the mine was worked. He approves of it; I do not. Still I venture to think that no practical miner would ever sink the main shaft on the top of a hill of great height, when he could bring in an adit level from the lowest point near the Camel, on the course of the great lode, which on its reaching a point under the shaft referred to would be about 50 fms. deeper than the present depth of 122 fathoms, and would be, it is believed, in that lode to a large extent passing through much rich copper-bearing lodes. There is no adit level at this mine; all the water was pumped to surface.

It is no fault of the mines, but of the miners, that the Great Onslow Consols is not a dividend-paying mine to this day. The south lode, to which your correspondent refers, is a very promising one indeed, bearing a heavy mass of rich gossan near the surface, and in concretionary strata. I hope he will be successful in getting it properly worked. I am told his liberal landlord, Sir William Onslow, Bart., has re-granted Onslow Consols at 1-24th dues, and also Hangar Wood and Wood Park sets. If so he is to be commended for his liberality and encouragement of mining. I not only hear this, but I also hear that Mr. Gregory is asking such a high figure by way of premium for the mine that no company is ever likely to be satisfactorily formed. If this is correct I must say that is very unwise on Mr. Gregory's part. It is true that he has spent some hundreds of pounds in driving on the course of the lode and erecting some inexpensive machinery, such as is totally inadequate for the full development of the south lode; but his immediate object should be to get the mine worked by adopting liberal terms, like his landlord. Too many mines are now floated under heavy premiums in cash and free shares. This is not as it should be. It is practically impossible to fix the sum which a mine is worth, whether or not the ore ground is open for inspection; and for any mine agent to report that such and such mine contains such and such quantity of minerals valued at hundreds of thousands of pounds is pretending to knowledge which cannot possibly be possessed.

In conclusion, I can only say that both Captain Spargo and Mr. Gregory have mineral properties in hand which will either be marred or made by the way in which they are dealt with, both rich in silver-lead and copper respectively; but the important question is, how shall it be raised to surface? In only one way can this be done—with adequate capital and good management.

June 13.

A MINER FROM WEST CORNWALL.

AN EXAMPLE TO DIRECTORS.

SIR,—If all directors of public companies, at least of those whose properties lie within the limits of the United Kingdom, adopted the very business course lately taken by the board of the Tresavean, the East Wheal Rose, the Old Shepherds, and the Mount's Bay Mines, it is probable that we should hear less of those mining failures which are continually being alleged to the discouragement of this industry. These gentlemen, with Sir George Innes at their head, have recently made a tour of inspection of these various mines, and occupied several days in making a minute examination of the preparations that are actively going on for the resumption of work.

They first visited Mount's Bay Consols, which though called by one name really comprises three distinct sets. The Trebarvah is a going concern with a 50 in. Cornish engine, and the whim-engine will be ready to go to work within a fortnight from date, and returns will be made in about a month. At Sydney Cove there are seven copper lodes, and the Great Wheal Vor lode, from which 2,000,000/- worth of stuff has been raised, goes right through the sett. The Penbro shaft is down in firm ground 60 fathoms. It is very wide, and the deepest points are the richest. The last three men who worked there returned 300/- worth of copper in a month. When more powerful machinery was wanted the old workers had not the capital to provide it, and to this circumstance, so fortunate for the present company, is due the fact that it ceased to be worked.

From here the directors proceeded to Old Shepherds Mine, where the interesting ceremony was performed by Sir George Innes of starting the engine. The shaft will go down between two rich lodes, and then a cross-cut will be put out east and west, when lead will be broken within a month. The main adit is cleared in North and South Shepherds 300 fms., and within 10 days lead will be broken from the end of the adit. The engines are purchased and will be erected with all speed. The sidings of the Great Western Railway are being constructed. Green's dressing machinery will be on the mines in the course of a fortnight, and it is believed that many thousand pounds worth of silver-lead is lying amongst the so called "refuse heaps."

A very interesting visit was paid to Tresavean, where the directors went underground to the 60 fm. level. The whim-engine has been purchased and erected, and the engine-house for the large pumping engine is erected, the material used being solid granite. The shaft is sunk in firm ground and acknowledged to be one of the best in London. Capt. Teague, in his report, said of this mine that it has a lode which will yield returns almost immediately. The last company worked for copper and quite neglected the tin, and even as regards the copper the lode from the 65 to the 175 stands intact. This is the testimony of Capt. Priske, who worked in the mine until it stopped. This, he says, will pay large dividends on the whole of the capital for years independent of the tin.

The results of this tour of inspection were in the highest degree satisfactory. The works were found in a more advanced state than was expected, and there seemed to be on the part of the local agents

and of all the employees an earnest desire to do all that was possible to bring the various mines to a success worthy of their past history and of the renown of the district.

INVESTOR.

THE PRESENT OUTLOOK, AND THE SIGNS OF THE TIMES.

SIR,—The market for tin is indicative of the accuracy of our forecasts, and it does not require a very far seeing correspondent to anticipate correctly the future course of events. Although the Ministry would not describe the Irish difficulty as "much ado about nothing," yet the Irish have always appeared worse on the surface than they have been in reality. It appears to us that Her Majesty's Opposition, as well as Her Majesty's Ministers, are bent on fair play for Ireland, and if that be so the irreconcilables will be left out in the cold, and their injustice will be apparent to none more than to the misguided people whom they have been making their tools. This question seems to be the difficulty of the hour, and when this is disposed of (as it will be, and that perhaps speedily) there will probably be nothing in the political horizon to disturb the capitalist. The most remarkable feature of the moment in business circles is the absorbing interest in new mining ventures. This may be deplored, as it is, by the steady-going old fashioned legitimate mining men, but the circumstance must be taken as a sign of the times, and authorities will have to guide rather than attempt to stop the current.

The gold mining mania has received a fresh impulse from the momentary flash of encouragement caught by the outlookers from Glasgow, but those of us who have not been unaccustomed to sudden surprises in mining take but little notice of the incident. Caution seems to be very significantly called for by recent events as to Cornish mines. Some of us may be prejudiced against the Limited Liability Act, which has so far proved itself to be a signal failure as far as mining in Cornwall is concerned. This passing comment is necessary, because it is stated as a reason why a prominent mine should be incorporated under the Limited Liability Act that outsiders should be enticed to it. If this is the real reason why the Limited Liability Act is patronised, then its advocates do very wrong in their own interests by letting the public into the secret. There was a time, which some of us will never forget, when a very celebrated business—Overend, Gurney, and Co.—was turned into a limited liability company. Afterwards came Black Friday—we think it was Friday—at any rate it was very black, and such a panic we never saw, and hope never to see again.

If the limited liability advocates will come forward, and give the public a fair chance, they will have no opponents; but we venture to say there is not a Cornishman living, whose reputation is worth anything, who will not condemn proceedings with which the public have now become so familiar. We refer to no particular company, much less to particular individuals, and we should not make these observations had they not have been called for by the reason alluded to above for adopting the Limited Liability Act, but at the same time if the new schemes brought out recently turn out to be successes, no one will be more pleased than the writer of this article. A proposition was made to turn West Seton into a limited liability company. How did the adventurers meet the proposition? Supposing any persons desired to turn East Pool into a limited liability company what reception would they get at the East Pool meeting? The same question applies to Dolcoath and to every thoroughly prosperous mine in Cornwall. If the mover got a seconder he would be exceedingly fortunate, for he would not get one *bona fide* shareholder to support him.

Now, notwithstanding all this, we are asked to advocate the claims of limited liability companies. How can we do it? The method is very simple. We merely say to promoters—take nothing for your property until it is proved to be valuable by results, but let every farthing of the capital subscribed go for the working of the mine, and you subscribe with everybody else to such capital. If the mine is worth anything you will get your profit in the premium, and if it is not do not attempt to bring it out, but pursue some honest vocation instead.

Take the case of a suspended mine, where a large amount of money has been laid out, but which is becoming a burden to the proprietors because they have not money to carry it on, or perhaps have not the inclination to do so. What is to be done? Are they to receive nothing for all their past outlay? Certainly they are to be paid to the uttermost farthing if possible, but if they apply to outsiders for capital they ought not to be paid until it has been proved whether their property is worth anything or not. Let them take their advantage out of the first profits of the company, subscribing with the public to the working of the mine. Than this nothing can be fairer. We recognise and acknowledge the truth of the maxim that "all must live," and there is no one who knows the anxiety and risk of promoters who will not maintain that they ought to be paid fairly, but their remuneration ought not and must not bring discredit upon an honourable profession.

JOHN B. REYNOLDS.

37, Walbrook, London E.C.

CROWN LEASES AND MINE ADVENTURERS.

SIR,—Is there not something rotten in the state of England? Ought it to be possible in this latter half of the nineteenth century for the Crown to have the power to serve anyone as it served Messrs. Watson Brothers in the case referred to by that firm in the *Mining Journal* of June 4. Really, Sir, it appears almost incredible that the representatives of the Crown should not only have the power of thus acting, but should have the audacity thus to perpetrate what appears to me to be an absolute injustice. It is this high-handed and unfair dealing in connection with other similar dealing with speculative industries that has sent tens of millions of money and tens of thousands of our most skilled miners and artizans out of this country.

What we have lost other countries have gained. The difficulties of obtaining mining sets on fair and equitable terms in this country, not only from Crown or Coronet, but from almost any landowner, are exceptionally hard, difficult, and expensive. The whole matter of licenses, leases, dues, &c., ought to be enquired into by a committee of competent men, and great alterations made or an entirely new line struck out. Can we, by any stretch of the imagination or by any possible combination of words, make the Crown the protector of Watson Brothers in the case referred to by them. This world it is plain enough can get along perhaps better with many changes, but it cannot do or would be badly off without such mining energy and enterprise.—Cornwall, June 11.

M. J.

OVERDRAWN BANKING ACCOUNTS.

SIR,—Everyone, of course, heard with regret of the stoppage of the Union Bank at Helston (Vivian, Grylls, Kendall, and Co.), the leading partners in which had not for a long time taken any very active part in its management. Whilst everybody regrets the failure of public institutions like banks, still these stoppages may in the end be productive of good, for we cannot fail to remember that both the Helston Union Bank and the Cornish Bank made advances to Cornish mines, which were altogether unjustifiable, and which over drafts were made in several cases without the cognizance of the great body of the adventurers. Chief and foremost in these unbusiness-like proceedings was the Union Bank of Helston, which allowed Carn Brea Mine to overdraw its account nearly 30,000/- without the knowledge of the adventurers, and knowing also that for years and years nothing was ever charged to the shareholders in the way of "interest and commission" for these large overdrawn accounts. Tincroft also was giving continuous dividends for a long period, although largely indebted to their bankers, such overdrafts being never mentioned in the statement of accounts sent out every quarter, and of which the managers of the bank were fully aware. A sum of between 3000/- and 4000/- was it will be remembered charged to the Tincroft adventurers in one lump for interest and commission. Every honourable man must know and feel that such overdraft and bank charges if fairly contracted ought to have been made known to the adventurers at their quarterly meetings whenever they took place. I maintain that such proceedings were altogether unjustifiable. If bankers, instead of carrying on their own legitimate business as bankers, become speculators and financiers, they must expect to reap the reward of such financing, which is altogether beyond the bounds

of what any honourable banker would enter upon. It is worthy of notice that the late Mr. John Michael Williams, an able financialist and proprietor of the West Cornwall Bank at Redruth, laid down the same rule with regard to overdrawn mine banking accounts, insisting that the overdraft should be mentioned in the cost-book at the regular quarterly meeting of the adventurers. If this had been done at Carn Brea, Tincroft, Dolcoath, West Bassett, and other mines I could mention probably we should never have heard of the collapse of the Cornish Bank or the Union Bank of Helston and other business concerns which were engulfed in consequence of their stoppage. It is only right to state that when the Messrs. Bolitho took over the Tincroft and Carn Brea accounts at the request of one or two of the leading shareholders, they did so with the proviso that the accounts in future should be regularly charged up, and that such banking overdraft, if any, should always be stated publicly at the meeting and mentioned in the accounts sent out.

AN ADVENTURER IN CORNISH MINES.

CORNISH CHINA CLAY

SIR.—Will you allow me to correct an error which inadvertently was made in my statements in a recent number of the Journal regarding exports of china clay and stone from Cornwall and Devonshire? I am informed by the harbour master at Padstow that the quantities given as exported from Padstow include those given as shipped from Wadebridge, so that the exports from the latter place, a sub-port of Padstow, are included twice in my table. The error may be corrected by simply striking out Wadebridge from the table altogether.—Leadenhall-street, June 6.

JAS. QUICK.

EAST WHEAL ROSE.

SIR.—It appears by a financial contemporary, corroborated by the Lyon King-at-Arms, that our Chairman is not a baronet, and that his right to the baronetcy "has never been recognised at the Lyon Office." Now, as I am a very large shareholder, I think that an explanation is at once required from our Chairman, and if such is not forthcoming my friends (who are large shareholders) and I will convene a meeting to insist upon his retirement, but hope a satisfactory reply will be given.—London, June 15.

A LARGE SHAREHOLDER.

EAST WHEAL ROSE.

SIR.—Your correspondent "Reader" appears to misunderstand my last letter. I did not mean in any way to represent the Chairman as attacking the writer in the *Mining Journal* of 1857, but merely someone who in the present day has put forward the same theory. That which appeared impracticable in 1857 may be quite possible in 1881. Whether this is the case with regard to the reworking of this mine I do not pretend to judge, but I presume the Chairman had professional authority for what he stated. He certainly did not say that iron is cheaper than wood, but merely that it can be economically used to advantage and to very much more purpose—meaning, I presume, in such a mine as this where, according to your correspondent, they formerly "buried a forest every year." If the date of the waterspout is really 1846, then of course the statement in the *Mining Journal* of May 9, 1857, that it was in 1842 must be an error. Any one would imagine from your correspondent's letter that this was so disastrous to the first company that it never paid dividends afterwards, but this would be a mistake. "Reader" says the second company bought the mine for £13,000. I know that it is so stated in the *Mining Journal* for April 19th, 1856, but I think that this, like the date of the waterspout, must be an error, for in the *Mining Journal* for Feb. 4, 1854, it is stated that the capital of the new company was to be £36,000, half of which was to be paid for the mine. The working capital was, therefore, but £18,000, and I have never seen it disputed that a very large part was spent in the vain endeavour to sink a shaft in the lode instead of in the country. The present company, therefore, starts with at any rate two advantages over the last one. It knows that it is useless to attempt to sink a shaft in the lode, and it has a working capital, not of £18,000, but of £6,000.

W. A. F.

ROMAN GRAVELS MINING COMPANY.

SIR.—By a statement in last Saturday's *Journal* I see the directors of the Roman Gravels have declared a dividend for June 16 of 5s. a share, which last year was paid in April, and it seems to me without any patent reason for the alteration in the time of payment. Meanwhile I am assured that the state of the mine is most promising, and seeing the announcement, as I do, that ore is being continually sampled for sale, I certainly, as a shareholder, did not expect the same amount of dividend for six-monthly as for four-monthly payments. Last year it might be explained by the fact that after non-dividends for three whole years, in consequence of depression and the oft-named and, I think, exaggerated failure of the Burry Port Smelting Company; but now, how with brightest prospects and improving trade the half-yearly dividend should be the same only as the four monthly is a suggestive matter of surprise. The directors may, doubtless, say its prosperity lies in the increasing value of the shares, but this to those who do not always want to be shifting securities is of little value. Regular dividends without fluctuation would satisfy better.

A DISCONTENTED SHAREHOLDER.

WEST AND SOUTH PHENIX MINES.

SOUTH PHENIX.—On going over this district I was glad to see their new pumping-engine nearly ready to work, and very soon a large number of men will be employed breaking tin and sending it to surface. In cutting down the new shaft they met with a run of tin branches 12 ft. wide, all good paying work, which appears to be standing intact to surface. This, together with the known productiveness of the lode in the 70, augurs well for the success of the undertaking. Marke Valley people, I see, have commenced working on the Wheal Jenkin tin lode, not far from the South Phenix boundary. This lode was worked on at a shallow depth many years ago through the whole extent of South Phenix limits, and will form a junction with the Grace Dieu lode in the western ground, at a point where they will be intersected by the West Caradon cross-courses, about which such large quantities of ore were raised in that mine; and, from the evidence of ancient workers on the back of Wheal Jenkin and Grace Dieu lodes in the western ground, it is very reasonable to suppose that a good mine is to be found at this point as well as in South Phenix.

WEST PHENIX.—I was glad to see that the sinking of the engine-shaft is being pushed on rapidly by 12 men, and relieving in place, and from the easy nature of the ground I should hope they will be down to the required depth for cutting into the lode in another month or two. Beautiful faces of copper ore are being met with in sinking the shaft alongside of the lode, which indicates the continued richness of the lode as seen in the 17, and there is every reasonable hope of a good course of tin and copper being met with at a deeper point. Very rich stones of tin, 28 lbs. in weight, more than one-third black tin, have been taken out in the last few days from the stuff which came out of Vatchers' shaft in this sett.

SHAREHOLDER.

BEDFORD UNITED MINE

SIR.—Never in the history of mining in this district since the discovery of Dovon Consols has a better lode been seen than the Bridge lode, now being developed in this sett. After a delay of two months to complete the necessary shaft work to the 20 fm. level, the drivage from this level has been resumed in a splendid lode of grey, black, and yellow copper ore, indicating a rich and continuous run of ore for half a mile, for the lode is nearly a mile long in this sett. Sinking the shaft below the 20 will be watched with much interest, as the lode will be resumed sinking on a course of ore worth 50/- per fathom for length of shaft, increasing in value as depth is attained, and the lode both east and west of the shaft is worth 20/- and 25/- per fathom, thus making an aggregate value of about 100/- per fathom. I repeat, without fear of contradiction, that a lode of such value has not been discovered in the district since Wheal Maria lode was found 40 years ago, and as the Bridge lode is a parallel one south, and adjoining the Devon Great Consols, results of equal magnitude

may be fairly anticipated, especially as the gossan part of the lode in appearance is identical, and equally characteristic of great deposits of rich ore. Those who are seeking a safe investment in mines will do well to purchase shares in the Bedford United at their present price.—Newbridge, June 15.

HECTOR.

BEDFORD UNITED MINE.

SIR.—Among the large number of companies in which the public are asked to invest their money it surprises me very much that Bedford United should be apparently overlooked, for I have been at considerable pains to make myself acquainted with the merits of this mine, and I will venture to say there is not another copper mine in Devon or Cornwall which has better prospects, few so good. In the first place it is a limited liability company, so that shareholders need not be nervous about the risks they incur. At the meeting on May 28 it was shown that nothing could be more satisfactory than the state of affairs, both financially and with reference to the development of the mine. After paying all expenses there was a balance in hand of £675. All the machinery has been erected and paid for; nearly 400 tons of copper ore having been raised since last November. The engine-shaft is now down the required depth for a 20 fm. level, and the ends are being driven east and west, worth 25/- each per fm. In a few days sinking will be resumed in a lode worth 50/- per fm. for the length of shaft. On the North lode the bottom ends are opening out good profitable stoping ground, and are extended east nearly parallel to where the Marquis lode made its immense riches. The lode in the 127 east is worth 12/- per fathom, and is improving. Three stopes in the back of this level are worth on an average 9/- 10s. 6d. per fathom. Now, with three points worth in the aggregate nearly 100/- per fathom, a good profit should be made. In addition to this the ground opening out by the driving of the ends should soon be available for stoping, which would give a profit of 20/- per fathom, at least. Then there are 417 forfeited shares which, at present low prices, would realise £347. From these figures I think we may fairly calculate that the shareholders may look for a dividend at the next meeting. We shall then see the shares at a much higher price than they are at present.

A SHAREHOLDER.

MINING IN THE GUNNISLAKE DISTRICT.

SIR.—Sometimes, as "A Miner" observes, lodes do not appear to hold out much hope of success in depth, but appearances oftentimes deceive the best of men, and it will be found on enquiry that nearly all the great mines in the West of England have at some period or other been worked and abandoned. In the Gunnislake district the two mines which have been tried in depth have both proved productive. On the other side of the Tamar the Old Wheal Marin—where the first great gulf of ore in Devon Great Consols was discovered—was formerly abandoned at the shallow depth of about 20 fms. from surface, and Wheal Crebor was also given up some half-century ago when only about 50 fms. deep. With modern machinery and appliances mines can be developed in depth with comparative ease and at much greater speed, and the neighbourhood of Gunnislake, it is to be hoped, will now be effectually explored.

OBSERVER.

GUNNISLAKE (CLITTERS) MINE.

SIR.—The questions asked by "A Shareholder" in reference to this mine in last week's *Journal* are pertinent and practical, and, therefore, deserve the attention of every shareholder who is anxious to see the mine worked for the benefit of the present generation of shareholders. If the responsibility of the management were put into the hands of an agent who would live on the mine and put all his time to the company's welfare, and not to the interest of half-a-dozen others, besides farming, I think the mine could be worked so economically and in such an energetic manner as would pay the shareholders handsome dividends. From all the information I can gather we must not expect a dividend at the next meeting. I trust Mr. Seccombe will give a satisfactory reply to the questions asked.

ANOTHER SHAREHOLDER.

GUNNISLAKE (CLITTERS) MINE.

SIR.—In reply to "A Shareholder's" interrogatories in last week's *Journal*, permit me to say that I think it only fair that such questions should have the writer's name appended thereto. "A Shareholder" is a very vague term. It may, or may not, be one interested in the above mine. A reference to my letter in a previous issue of the *Journal* will show that I was desirous of the Clitters shareholders obtaining the fullest possible information relative to the extent and capabilities of the sets previous to the meeting shortly to be called to determine on selling a portion of it. Thus they would be prepared beforehand to discuss the matter intelligibly and decide without these vexatious delays. To such enquiries I should have been pleased to give any information I might have possessed. With the working of the mine I have nothing whatever to do; this is in the hands of a committee, duly elected by the shareholders, and the company's agents, who together should be fully competent to manage the working of this mine. Doubtless the question of a new shaft and larger water supply is worthy of legitimate discussion and should receive early attention. I fail to see the necessity of expending a large sum of money, perhaps 800/- to 1,000/-, for boring machinery at present. Under no circumstances is it required, unless it be determined to put through a new shaft.

The adoption of some method for letting workmen into and raising them from the mine is of paramount importance, and should receive immediate attention. If, as is stated, in mines of 200 fms. deep, 20 per cent. in labour is saved by this means, as compared with men being obliged to climb the distance, 150/- expended in this manner would prove the best investment of capital that has been made, even in this mine, for many years. If the saving be only 10 per cent., it means 50/- saved on a monthly labour-cost of 500/-, or 400/- per cent. per annum on the outlay.

"A Shareholder's" remarks in reference to dividends seem rather premature, seeing that the mine has only recently re-entered the Dividend List; he might have waited until the end of the year before settling it at 3 per cent. It speaks volumes for this mine that it is able to pay dividends at all, when such mines as Devon Great Consols and South Caradon, hitherto the greatest copper mines of the two counties, are obliged, through the unprecedentedly low price of copper, to suspend dividends indefinitely.

Altogether, "A Shareholder's" queries seem intended to be derogatory; a careful reading between the lines leads me to think that though "Some traces of Eden they may seem to inherit," yet "The trail of the serpent is over them all."

R. C. SECCOMBE.

Tavistock, June 14.

PERKINS BEACH MINE, SHROPSHIRE.

SIR.—Work has been begun at this mine under the auspices of the new company, and I hope all the operations will go straight on to success. At South Roman Gravels also a new shaft has been started, and the explorers have my good wishes. The formal commencement of the Liverpool water-works at Llanwddyn is fixed for July 11, when the Earl of Powis will lay the foundation stone of the great embankment across the valley of the Vyrnwy. The importance of this great work can hardly be over-estimated. When will the London authorities rise to a true conception of the sanitary needs of the vast population under their care, and go in for a gravitation water scheme worthy of their resources and sufficient for their wants?

A new invention for raising sewage water or other liquids, patented by Mr. Kidd, of Wrexham, was tested last week at the Oswestry Sewage Works with perfect success. The apparatus appears to be at once simple, inexpensive, and self-acting. It is described as consisting of a steam cylinder or pipe 12 in. in diameter and 3½ ft. in height, an outlet valve 8 in. in diameter and an inlet valve 11 in. square, or equal in area to that of the cylinder. The total amount of space occupied is 5 ft. + 13 ft. The sewage water or other fluid rushes through the inlet valve with a velocity due to its head of pressure, and on filling the cylinder it is instantly ejected by the steam acting upon its surface, and the mechanical arrangements are such that the action is almost continuous. The advan-

tages claimed for the invention is that the apparatus will dispense with the use of engine, engine-house, foundations, and intermediate machinery, and that one small boiler will do for several machines. Corporate bodies and engineers interested in the question of raising sewage will do well to visit the Oswestry Works, and see the apparatus in work there. Wrexham is thus becoming as much a centre of sanitary as it is of mining operations.

GREAT POLGOOTH UNITED TIN MINES.

SIR.—Being in the neighbourhood of St. Austell curiosity led me to visit the Great Polgooth United Tin Mines. I had succeeded in obtaining an introduction to Mr. Richards, the able and courteous captain of the mines, and had thus the best possible opportunity for making a thorough inspection. The result was so satisfactory that I purpose becoming a shareholder in the company. In the new ground lodes equal, if not superior, to any of the old workings are being opened up, and are of the finest description. From the energy displayed in the working of the mines, and in the preparation for the erection of the machinery, which I understand will be delivered at once, I am certain that this grand mine will return handsome and increasing dividends before many months. I have no interest as yet in this mine, but am simply—

AN INTERESTED BUT INDEPENDENT OBSERVER.

White Hart Hotel, St. Austell, June 16.

GREAT WHEAL POLGOOTH.

SIR.—I was pleased to see Mr. R. Symons's letter in last week's *Journal* confessing himself to have been in error as to the sett and whereabouts of the Great Wheal Polgooth. But I do think such an acknowledged authority as Mr. R. Symons ought to have known better than to write such a letter as appeared in the *Journal* of June 4, as I have reason to believe that it has done a deal of mischief, not as regards the Great Wheal Polgooth mining sett, but to throw discredit on the directors of the company, who are all men of responsibility, and whose characters will bear the strictest investigation, as that letter has done. I think he ought to know more about the district—as he professes in his letter he does—and not go by "hear says" of what he learns in London from Captain anybody, not even knowing the water-courses of the county. I trust he will be more careful in future to throw discredit on any set of directors or their prospectus—even going so far as to insinuate that the prospectus is false and untruthful. I would refer Mr. R. Symons to the directors, and they will inform him what part is to be divided for 50,000/- to be called the Great North Polgooth, and would recommend him to take further interest in it. By so doing he will get to know more about the district and its surface.

June 15.

A SHAREHOLDER IN GREAT WHEAL POLGOOTH.

GREAT WHEAL POLGOOTH.

SIR.—Upon the invitation of a friend I visited this mine to-day, in order to satisfy myself as to the character of the tin lodes, respecting which so much has been said and written. Amongst the lodes in the sett there are two, called respectively north and south lode, separated from each other by an elvan course about 30 ft. wide. The north lode varies in width from 3 to 4 ft., and the south lode from 6 to 10 ft. I desired a miner to break off some portions of the north lode, which I caused to be bruised on a shovel and "vanned," and which I found to contain at least 50 per cent. of tin ore—black tin. If the yield of the tinstone should be found to be uniformly of that quality, of course the mine would be remarkably rich. The specimens given me were, however, not selected, but taken casually. I am satisfied from the assays that the mine is rich, and the ancient workers must have found it valuable to induce them to remove nearly all the lodestuff from the surface to the adit level, and in two or three places, where there are engine-shafts, about 20 fms. below that level. Tinstone is very plentiful at and around the old mine waste, and can be picked up in the roads—in fact, the metalling of the road near the waste is partly composed of tinstone. I am, therefore, satisfied that the shareholders have a good property, and that to sell their interest at a sacrifice would be unwise. There are eight men at work in preparing the lead for the water-wheel, and four men upon the tunnel, through which the water will pass to the wheel. The water from the river passing by St. Stephens village is ample to drive a wheel of 60 ft. diameter and 8 ft. abreast, in addition to which there is the Lanjeath tributary.

I see no reason to find fault with the promoters as to the prospectus, except their geographical ignorance in describing the position of the property; but that does not show that they had any intention to deceive their readers. The character of the mine justifies the description given of it, and the extent of the present sett is ample for two mining companies. In my original letter I did not say a word against the mine, I merely stated that the description was vague and indefinite.—Truro, June 16.

R. SYMONS.

GREAT WHEAL VOR UNITED MINES.

SIR.—My family having been more or less connected with the above named mines for the past two generations, the various letters which have recently appeared in the *Journal* have much interested me. Personally I do not know any of the correspondents who have been writing for and against these mines; nor do I know any of the promoters of the new company about to be formed. I beg, however, to say that in my opinion "Miner" is quite right in stating the mines are not proved to the east of the great cross-courses (which, by-the-way, is renowned for the great riches it has made in other lodes to the north and south of Great Wheal Vor). My late father, Capt. W. Bugelhole, of Great Alfred and other mines, was sounded as to taking the management of Great Wheal Vor when Capt. Craze left, but declined it on account of his advanced age (he knew the mine thoroughly from a boy), and I remember him telling me at that time that if the adventurers would lay open the mines to the east of the great cross-course, he believed they would get a monthly return of tin of at least 70 tons. I may also state that my grandfather was agent at Great Wheal Vor for many years, and I have no doubt but that Mr. R. Symons can remember the rich bunch of tin he discovered, and which yielded such enormous profits. If the mines are fully laid open to the east of the present deep workings I have no doubt but its grand old history will repeat itself.

West Providence Mines, St. Ives.

WM. BUGELHOLE.

THE CALLINGTON DISTRICT, AND ITS MINES.

SIR.—I see there is no less than eight of the lately suspended mines started afresh in this district, and I believe a great many of them will, with legitimate management, prove very remunerative to the shareholders. The great gem of the district at present appears to be that of Trebartha, the lode producing 8 cwt. 2 qrs. 12 lbs. of tin to the ton of lodestuff. I find there is still other mines about to be reworked in the district ere long; one of them has been very recently obtained under most favourable terms. There has been silver-lead, copper, and arsenical muriatic returned from this property, but like many of its neighbours has been badly treated. What has been done has been mere surface scratchings. There are 40 fms. of backs to be obtained by tunnel or adit driving, as there are two hills and a never failing stream of water running through the entire length of the sett between the hills. The party that has this property is open to join an influential party with the view of forming a company for working the same. The situation is one and a half mile from the town of Callington.

JOHN BUCKINGHAM

find, a pure sulphate of barytes, and free from all impurities. I also found from the agent the barytes has been supplied largely to Messrs. Pegg, Harper, and Co., of Derby; Messrs. Walker, Parker, and Co., and other large manufacturers in Wolverhampton, Birmingham, Liverpool, and elsewhere, consequently showing, although little known to the general public, the above article is in large demand, not only in paint manufacturing, but the above works have supplied Sir Josiah Mason at his works for fluxing nickel silver ores. No doubt eventually it will be used as a basis in other manipulations, its specific gravity being equal to lead and free from carbonate of lime, which is most material in paint and colour making.

London.

Tourist.

BWLCH UNITED MINES

SIR.—I visited these mines in company with clients who are largely interested, and they were so well satisfied with the prospects that they commissioned me to procure them further interest in this progressive investment. Captain Northey, a director's son, and myself inspected the 30 fm. level, and I was surprised to find such a massive lode so near the surface.

It appears that the ancient Romans had commenced working upon this lode, and for some reasons unexplained had not taken any of the lode away. It is my opinion, in conjunction with other eminent engineers, that this lode extends throughout the sett, as I followed it for a considerable distance, and broke samples which are considered very rich in silver. I should advise shareholders to hold fast to their shares, for there are certain unscrupulous sharedealers who are trying to depreciate the mine in order to secure the shares. I thoroughly inspected the machinery (which is driven by water power) and found everything working well. A new additional jigger has been ordered by the directors, and will arrive at the mine on the 20th inst., and it will at once be erected, the quantity of ore will thus be greatly increased. My opinion, in conclusion, is that this is the finest and most promising mine in the county, and under the management of Capt. Northey will prove itself second to none. I strongly recommend shareholders to inspect the mines before selling.

Great St. Helens, June 10.

HORACE J. TAYLOR.

GREAT WHEAL CARADON MINES.

MR. M. HESLOP'S SPECIAL REPORT.

London, May 26.—I carefully inspected the above-named mines yesterday, accompanied by Capt. Wm. Richards, who conducted me over this extensive mining property. I now submit the following report thereon:

LOCALITY.—The mines are situate in the parish of St. Ive, Cornwall, about 4 miles from Liskeard Station. They are surrounded by the richest mines in the district, and in close proximity to the Caradon Mines on the north, which have paid over 750,000*l.* sterling in profits, and adjoin on the south boundary by the well-known Wheal Mary Ann, Trelawny, Trewhella, and Wheal Wrey and Ludcote Mines, which have returned the enormous sum of 1,336,000*l.* The Great Wheal Caradon Mines are a continuation of the same identical champion lodes as those of the last-named mines, and in the same strata and rich mineral zone of lead-bearing measures, and judging from the fine specimens which I picked from the debris at surface, and from the general matrix of the lodes I am decidedly of opinion that the Wheal Caradon lodes, will, when developed, prove to be equally rich if not richer than the adjoining mines above mentioned, and will produce equally large returns.

EXTENT.—The property embraces a very large area of mining ground, being ample for two or three mines.

STRATA AND LODES.—The stratum is a light blue clay-slate and of a highly mineralized nature, and possesses the strongest indications of rich mineral deposits. This formation is traversed by four well-known great north and south rich silver lead-bearing lodes, being a continuation of the Wheal Mary Ann, Trelawny, Trewhella, Wheal Wrey and Ludcote lodes above mentioned, and also by three east and west lodes which contain large quantities of blende, iron-pyrites, and copper. These lodes are parallel with and in close proximity to the Caradon Mines. The property is very remarkable for the variety of minerals it contains, the east and west lodes producing large quantities of blende and iron-pyrites with copper, while the north and south lodes yield a large amount of rich silver galena, over 42 ovs. of silver per ton of ore, and 80 per cent. of metallic lead—a percentage of silver seldom found combined with such fine galena, and being as good for silver as the Great Laxey Mines.

WORKINGS.—Although the mines have been suspended many years the plan of the workings shown to me illustrates a great amount of valuable preparatory work done, and judging from the section there appears to be about 30,000*l.* available expenditure incurred in sinking shafts, cross-cutting, and driving levels, &c. From these workings large quantities, I was informed, of blende and silver lead ores were raised and sold, and the shafts and levels being in firm ground could soon be put in working order and returns made in a very few weeks, or as soon as the workings are cleared. The east and west lode, I was informed, is at once capable of producing good returns of lead and blende, and may be increased from 50 to 500 tons of blende per month, as the work progresses, and according to the number of hands employed. This should leave a very handsome profit itself, but the south lode will yield rich silver lead-ore in paying quantities at once, so that the mines can be worked at a profit almost immediately.

In my opinion, and I speak from an experience of over 30 years in practical mining, I venture to predict that with vigour is working and improved modern appliances for developing the mines, this property will return dividends equal to those above enumerated.—M. HESLOP, Consulting Mining Engineer.

CAPTAIN RICHARDS' REPORT.

The Great Polgoon United Mines, St. Austell, May 24, 1881.—I have made a careful inspection of the above property; the geological features and situation of the sett are all that can be desired. It is surrounded by mines that have yielded immense profits, and is traversed by the same lodes; in fact, the whole strata are identical with those of the adjoining mines which have yielded immense returns, viz.:—Wheal Mary Ann, 600,000*l.*; Trelawny, 960,000*l.*; Trewhella, 96,000*l.*; Wheal Wrey and Ludcote, 280,000*l.* A shaft 45 fms. deep has been sunk in the south part of the sett in a splendid north and south silver-lead lode. At the deepest point the lode is from 3 ft. to 4 ft. wide, regular and well defined, and only driven in about 9 ft. from the shaft, at which point a rich course of ore was met with embedded in easy ground for working, and worth fully 1 ton of ore per fathom, and as the lode is not yet got through, it no doubt contains a larger quantity. This shaft being sunk in firm ground is in good condition and of sufficient size for the development of this part of the mine, so that operations can be at once commenced on the course of the lode, and rich class ore are raised in quantity, and good results forthwith obtained. In another part of the sett further north another lode has been opened up by sinking two shafts about 45 fms. deep each, and levels driven on by the course of the lode; here the lodes are large, being from 4 to 6 ft. wide, of a champion character, and rich in blende ore. A good sample of this ore has been broken from the lode and hauled to the surface. At the time this work was done blende ore was very low in price (about 20s. per ton), but has lately risen to 80s. per ton and upwards), and as there are thousands of tons of rich quality blende laid open in the workings on the course of this lode, large profits can be quickly realized from the sale of this blende.

There is no doubt that the available work done is worth to an incoming company at least 30,000*l.* Blende can be raised in any reasonable quantity, from 50 to 500 tons per month, according to the number of hands employed. The surface of the sett has recently been extensively costeened, and the backs of several master lodes laid open in virgin ground, adits cleared out, &c. One of the lodes discovered in costeening has a very fine appearance, and contains a solid vein of iron pyrites about 1 ft. wide. From the general character of this lode it is intended to sink a shaft on its course, as there is no doubt good results would be met with at a very shallow depth. The whole of the lodes found in this sett are well defined, carrying good walls, and embedded in a beautiful blue clay slate, easy for working and congenial for mineral. The property is sufficiently extensive for two mines or sets of operations, the silver-lead lodes on the south part constituting one, and the blende and muntic lodes in the north part forming another. If it is intended to sell part of the property you should get not only back the whole of your capital from such sale, but you would still retain most valuable property. There is ample water for dressing purposes at all seasons of the year, and good roads surround the property, thus insuring cheap transit, and the property being in the centre of this large mining district, a sufficient staff of workpeople can be readily obtained at the same rate of wages as paid by surrounding mines. Capt. Vivian accompanied me in the inspection, and he concurs with me in the belief that you have acquired a most valuable property, and one in which the speculative element is reduced to a minimum.—W. RICHARDS.

THE FORTESCUE (STANNAGWYN) MINE is on the eve of being resuscitated under highly favourable auspices. A strong and practical board of directors has been formed, and as soon as the legal arrangements are completed the new company will be announced to the public for a small amount of capital.

A company under the auspices of Messrs. Thompson and Sons, stock brokers, of Plymouth, has been formed to work the well-known Royalton Tin Mine, in the parish of St. Columb, and held under royal grant. Over 15,000*l.* have already been returned from an open cutting.

ELECTRIC LIGHTING is at length beginning to enter into serious competition with gas for street purposes. The new contract for lighting the Thames Embankment by the Jablachkoff system is at the very reduced rate of 1*d.* per lamp per hour—a price at which, if it can be satisfactorily applied, will make the general adoption of electricity a practical question. The first cost was 5*d.* per lamp, and by the contract of 1879 this was reduced to 3*d.*, so that the present charge shows a reduction of exactly one-half.

Meetings of Public Companies.

SANTA CRUZ SULPHUR AND COPPER COMPANY.

The statutory meeting of shareholders was held at the Cannon-street Hotel on Monday,

SIR FRANCIS KNOWLES in the chair.

MR. J. JAMESON TRURAN (the secretary) read the notice convening the meeting.

THE CHAIRMAN said—Gentlemen, we are assembled to-day in obedience to the Act of Parliament, which regulates the proceedings of joint-stock companies. We might have convened you probably at a later date, but we thought it very desirable, as soon as we should have accumulated sufficient materials, to present to you as early as possible a kind of birdseye view of the nature and state of the property, in the exploration of which you have embarked so large a sum. The first point, gentlemen, that will naturally strike you is the question of title. I am happy to be able to announce to you that, aided by our able and respected solicitor, Mr. Morgan, advised by counsel

—a gentleman at the bar eminent for his acquaintance with foreign law—we have secured you a perfectly clear and unimpeachable title. We have not only secured you such a title but unencumbered by a great number of very inconvenient assignments. You stand, in fact, only second from the original grantees of the Spanish crown. So much, gentlemen, for the title of the property. The next point, gentlemen, is the condition of the property itself. You have all learned from the prospectus that it is composed of certain veins of pyrites which are contained in a considerable mountain, that mountain has been explored by several levels, and that now nearly all of these veins are partially laid open. The quantity of the mineral which you can excavate from these veins of course depends upon the openings. I would just take the opportunity of saying, gentlemen, that with respect to the price that you have paid for this property, you find a great deal of work already done to your hands; and not only have you that work done to your hands, but you occupy a position of great importance. Supposing you had been the persons first of all to open these mines, you would have had to encounter the kind of risk that attends all mining operations, however sagacious the persons who previously investigated the strata and all the considerations upon which mineral discoveries depend maybe. You have avoided that risk, and you come in without paying, as it were, the premium of insurance that the previous excavators of the mines had to undergo, and that I consider and present to your minds as a very great advantage. Now, gentlemen, as to the quantities; they depend upon the openings and the number of men employed. We have at this moment 57 men employed; a great many of those men are for the moment employed in making repairs, for the levels were found to be considerably out of order, and I believe there was a slight collapse of the air shaft. Therefore, you must not consider that all these men are employed in absolutely working the mineral. However, we have arrived at this condition that we have now broken sufficient ore for our first cargo, and the only difficulty that presents itself is finding a sufficient number of carters to convey the ore down to the port of shipment. A certain portion—I believe some 30 tons—has already been conveyed there, and our last advices are that carters are coming in, I suppose, like all workmen, finding they had a good opportunity to endeavour to get the best terms they could. We, of course, were bound to stand out, and in consequence of that, and in consequence also of the engagement of workmen elsewhere with agricultural operations and spring sowing, we did not succeed at first in getting so many together as would have been desirable. However, nothing can be more promising than the condition of things at your mines. Now, we have this morning received a telegram which I will read to you, gentlemen:—"270 tons at mines; 30 tons at coast; lode main level worth 7 tons per fathom; lode western level worth 3 tons per fathom, giving out a quantity of water—great signs of improvement." No. 2 and other lodes not properly opened; many carters coming in." That is signed by the captain of our mines. Well, gentlemen, I will just observe to you in passing that we have had the misfortune to have a slide—that is, a fault, which has displaced the lode. We are working as fast as possible to meet with and recover the lode, and when that is done a proportionately larger quantity of mineral will be laid open. That is the statement as to the quantity of the mineral which you are able to excavate at your mines. Now, gentlemen, I come to a point of great importance. You received not very long ago a circular giving you the analyses that we had recently had made of your mineral, which analyses were very favourable. We have since received another analysis, which I will read to you as being very remarkable. In 100 parts, sulphur, 43.11; copper, 4.52; siliceous mineral, 14.76; moisture, 7.5; iron, 37.53. Now, gentlemen, that assay is by a house of business that is actually ready to take cargoes or enter into contracts with us for the delivery of this mineral, and you perceive that the copper is very large indeed. I do not mention the iron at present, but iron is not an inconsiderable element, because in the present process of treating, after the sulphur is procured from the ore, the residuum is taken out, and the iron is sent for the purpose of being employed in the ironworks in puddling and blast furnaces; therefore, you must not look upon the iron as an inconsiderable element, but as one that will be of some importance as reducing the original and ultimate cost of your mineral, and proportionately increasing your profits. If you turn to a former assay you will find that it is .75 ozs. per ton of 20 cwt. of pyrites in silver—that is, 3/4 ozs., as you can compute very easily. I have made a slight calculation, which I will take upon the estimate of 70,000 tons of output that you propose to make. I find that that alone is equal to an amount of 325*l.*, or a dividend of 6*s.* per cent. I refer to this more particularly because you will find that we mention it in our prospectus, and it is highly satisfactory to us to find by subsequent analyses of your mineral that it goes almost entirely to justify our insertion of those paragraphs. It is a most important thing, because many railway and other companies would be rejoiced to gain a dividend of 6*s.* per cent., and this element of silver, bear in mind, is one of very considerable importance in your position. I am reminded very frequently by our secretary to state that that would be irrespective of your copper and sulphur—it will be a distinct element of value, and also in reducing the cost of production. We stated, gentlemen, in our prospectus that the average price of the mineral was 40*s.* Now, taking the average of the assays we have since had, we find that instead of 40*s.* we have 59s. 5*d.*, as nearly as possible 60*s.*, exceeding by 20*s.* the price of 40*s.*, we stated in the prospectus as the basis of our calculations. That is a result of great importance, and is one which I hope and trust will be gratifying to you. We are now arranging for an engineer to visit the mines as soon as they are further developed, and this engineer will be accompanied by a director who will make a complete and thorough examination of the mines, and send over his report to you accordingly; and we have also, I may say, sent over some rock-poring machinery, which is of a very efficient character, and will create an immense saving in labour in the excavation of the ore in our mining operations. I mentioned to you one firm, but there are several firms ready to deal with you and to enter into large and some of them exclusive contracts for the sale and delivery of this ore. We have given you now, gentlemen, a summary of all that is interesting with respect to this property, and I can only say this, that we shall do all in our power to deserve your confidence, which will be our greatest encouragement to us, and I need not say will be our greatest reward. There is no report, as you will suppose, at this early stage of our existence, and there are no accounts to lay before you. They, of course, will form the subject of a future meeting. If any gentlemen have any questions to ask, or observations to make, I think the time has now come when I shall be most happy to answer them. The first cargo is all cut and ready for shipment; all that has to be done is to convey to the port; 30 tons have already gone, and I believe the rest will shortly follow, and that very soon you will have the first trial cargo of your minerals in England. I am reminded, too, that there will be no difficulty in selling the ore. In fact, we have had so many applications that I do not know that we shall be able to supply. I may say that the quantity used in this country is very large, and is, I believe, likely to increase. That will furnish a very fair ground to you for calculation as to the probable demand that may be made upon your mineral, and, of course, in proportion to that the profits you are likely to make. (Cheers.)

In answer to a question, the CHAIRMAN said there were no contracts except those stated in the prospectus.

Mr. ORLANDO WEBB: You have favoured us with a report, and you have also favoured us with a calculation as to what is likely to be derived from the silver; I should like to ask if there is any similar calculation with regard to copper and sulphur?—THE CHAIRMAN: The total is 59s. 8*d.*, irrespective of the silver—that is, simply from the sulphur and copper. The silver is an auxiliary or additional value. In one of the analyses made by my directions we found more than 3/4 oz. of silver and more than 7 grs. of gold, indicating that possibly veins of the precious metals interspersed amongst the other minerals may be found. The 59s. 8*d.* is quite irrespective of the silver; it is the value derivable from sulphur and copper.

Mr. ORLANDO WEBB: You have told us that you have many applications for the ore, and that some persons are willing to tender and accept it. Have they given any quotation, and if so, what are the quotations?—THE CHAIRMAN: We have not yet come to that stage in the negotiations. They merely state generally that they are willing to transact business, that they have received samples of the ore, and appreciate its quality and value. One letter received this morning says, "I shall be glad to know if you are in a position to quote for sulphur, or for one, two, or three years contract, commencing January next."

Mr. BAXTER: I might say that these particular things—sulphur and copper—cannot be contracted for at any fixed price. Each cargo is sold according to the particular assay, so that each cargo might to some extent differ. The custom is that in these things the purchaser and seller both appoint an assayer, and they each take out what are considered fair average samples, and upon the result of the assay the price is fixed in accordance with what are called the Swansea Tickets—that is, the average market value of sulphur and copper.

Mr. O. WEBB: I rather gathered from the Chairman that you had received tenders extending over a period of time; if so, of course it must be a tender at a fixed amount. It may be a mistake on my part.—Mr. BAXTER: It is. The offers extend for periods of time, but the prices are not fixed. The ores of the Hafna Tinto Company, Tharsis Company, Mason and Barry, and others are regulated in the same way.

THE CHAIRMAN: It is, in fact, a sliding scale, and it is a very complicated process. It is a kind of arrangement between the smelter and the vendor of the copper.—THE CHAIRMAN, in reply to Mr. C. S. HILL, said that although the percentage of silver might be small, 3/4 oz. to 1 ton in such an output as they expected to have, made the element one of considerable importance.

A SHAREHOLDER asked whether it was in contention to establish the means of separating the metal from the ores at the mines themselves, or whether it was intended entirely to export the ores to this country. He also asked whether it was not the fact that another company had found it did not pay to export the ore to this country.

Mr. F. SUTTON, as a manufacturer of sulphuric acid, stated that if the company could produce ore such as the Chairman had mentioned, they would have no difficulty in selling it as fast as they could produce it. Sulphur and copper ores of that class now in the market were practically in the hands of a monopoly which regulated the price of the ores; but he thought there was no doubt that they would be able to get rid of all their ores at a good profit. (Hear, hear.) With respect to silver, 3/4 oz. to 1 ton would certainly pay where large quantities were treated, but the price should be calculated at 3*s.* per ounce.

The CHAIRMAN remarked that there was a considerable item in the analysis—that of earthy matter—which would be considerably decreased.

Mr. SUTTON said his own opinion was that the ore would come to about the percentage of the Rio Tinto, Mason and Barry, and Tharsis ores.

THE CHAIRMAN, in reply to the questions asked, said the property was purchased from the New Tharsis Company. The question of erecting works for treating the ore had not been decided, but the engineer who was going out would report upon that matter. He (the Chairman) had a most important investigation on hand—if he might do so without egotism—which tended to show that copper could be separated from the iron absolutely in the metallic shape. In that case they would, of course, adopt the shareholder's suggestion, and erect dressing works. (Hear, hear.)

On the motion of Mr. O. WEBB, seconded by the Rev. G. W. JONES, a cordial vote of thanks was passed to the Chairman and directors, and the meeting then closed.

THE INDIAN GOLD MINES COMPANY.

The third ordinary general meeting of the Indian Gold Mines Company (Limited) was held on June 10, in the Accountants' Hall, Glasgow, for the purpose of receiving the balance-sheet and ordinary report of the directors for the year ending April 22 last. Sir WILLIAM CUNNINGHAM occupied the chair, and there was a numerous attendance.

Mr. J. WYLLIE GUILD, the secretary, read the circular calling the meeting. The report of the directors, which was held as read, stated that the very serious difficulties legal and otherwise which had been encountered had to some extent retarded the execution of the principal works at the mines, but, notwithstanding, the directors believed that very considerable progress had been made. The directors thought it right to mention that the balance of the financial year, been sold at 4*s.* per share, and that the full capital of 50,000*l.* had now been received.

THE CHAIRMAN proposed the adoption of the directors' report and balance-sheet. As he went on to say, they had heard the position of the company explained so recently, it was unnecessary to refer at length to the contents of these documents. It had not, however, been mentioned that under a new arrangement with the Rajah of Nellambore the lease had been extended from 24 to 48 years—(applause)—which, he was certain, would be gratifying information to them. In order to give the shareholders an idea of the position and operations of the company's fields he had got Col. Bolton to engrave a sketch which he (the Chairman) had made during his visit to the country. This sketch he explained, pointing out that the country was of a very precipitous and mountainous character and presented difficulties to mining operations, but with their improved machinery he doubted not they would find all the reefs to contain a sufficient quantity of gold to pay their working them. The question now at issue was whether the reefs went far down; if they did go down past the tunnel road they would find more quartz than would last them for the 48 years of their lease. They had found favourable indications of quartz down to the tunnel road, and it was probable that it might go down 300 or 400 yards, so that it was only necessary to extend their operations in order to make any amount of return on their capital. One reef—the one about which they had the telegram the other day—had been proved, but he was not quite certain which of the reefs it was from which the stone had been taken. Not only was the valley apparently very promising in ore, and, as far as they could judge, a very favourable mining venture, but it also presented features that mining could be carried on very economical terms. As to the recent telegram, he entirely agreed with the members of the company in feeling great satisfaction at such favourable news; at the same time he would be almost better pleased had the news not been quite so favourable, because he was afraid they would not be able to keep up a return of such high qualities. But even if it was much less—even a quarter of the amount—the divisible sum among the company would be very great. He calculated that if they drove 40 stamps and the return was only 1*oz.* per ton, they would be able to divide something like 30 per cent. on their capital. Everything was being done to hurry on the operations by Mr. Sever

plan suggests. The agent was present, and would answer any questions as to the mine, which he assures us is improving, and he hopes will soon be in position to realise 40 or 50 tons a month.

Capt. ROBERTS explained by a section of the workings the important points which they are now approaching. The old miners raised 100 tons of lead per month down to No. 5 level, and the No. 6 is now close upon the main body of ore.

The balance-sheet and accounts were passed and adopted.—Mr. H. W. Lamb, the retiring director, was re-elected.

Mr. ASHMEAD (the auditor) stated that he had carefully examined all accounts. The books, in his opinion, were admirably kept, and he had certified to their accuracy.—He was re-appointed auditor.

The CHAIRMAN, in reply to a question, stated that he and his friends had the most perfect confidence in the ultimate success of the undertaking. They were now on the turning point toward the great success they had been so long waiting for.

The meeting was then made special, to pass the special resolutions for rearranging the company's share capital.

The CHAIRMAN said that, with regard to the special meeting for the division of shares, this question had been more than once brought before the directors and urged upon them. In fact, one or two meetings were held for the purpose of increasing the number of shares, but it was found, owing to the different amounts paid upon the three classes of shares, that there were legal difficulties in the way, and the idea was a lawyer these difficulties to the directors, has since matured the plan which had been submitted to the shareholders. In print it looks somewhat complicated and difficult to understand, but in practice it is simply this—every present holder of 1-1536th will receive 25 fully paid-up shares, which, although for the purpose of assimilating the different amounts paid up on the three classes of the shares, and to get rid of legal difficulties, will present a sum of £3, only as actually paid up, the shares it is expected will command at least £1, and will equal 50% for the present share. After allotting these shares under the new arrangement there will remain 6500 shares, 3072 of which will be offered *pro rata* to present holders at 12, each as a bonus, and this will give the company a cash capital of 3072L, and a reserve in shares of 3523L. He concluded by formally moving the subjoined resolutions:

1.—That the sum of 17,920L having been paid up upon the 1536 shares, of which the company at present consists, such shares be subdivided into 35,340 fully paid-up shares of 10s. each, representing the said sum of 17,920L."

2.—That the capital of the company be increased by the issue of 9150 additional new shares of 10s. each fully-paid, making the total capital 22,500L, in 45,000 shares, of 10s. each."

3.—That 3072 shares, part of the 9150 new shares, be offered *pro rata* to the present shareholders at the limited premium of 10s. per share, each shareholder being at liberty to take two of such new shares at 12, each within a time to be named by the directors, in respect of every share now held in the company, and in default of the same being accepted by any of the shareholders within the time so to be named, that the directors be at liberty to dispose of every share to the other shareholders, on such terms as they may think proper, being not less than the premium of 10s. per share."

4.—That 1200L, part of the premium to be received from the sale of the said 3072 new shares, be applied in payment up in full of 2550 of the remaining new shares, and that the said 2550 paid-up new shares be added to the 35,340 shares mentioned in the first resolution, making together 38,400 shares, and that the same be divided amongst and allotted to the existing shareholders at the rate of 25 such fully paid-up shares of 10s. each in lieu and satisfaction of every existing share in the company."

5.—That the balance of 3523 new shares be held in reserve by the directors to dispose of when and as they shall think proper for the benefit of the company."

Mr. O. WEBB seconded the resolution, which was put to the meeting, and unanimously agreed to.

The usual complimentary vote of thanks to the Chairman terminated the proceedings.

OKEF TOR COMPANY.

The first ordinary general meeting of shareholders was held at the offices of the company, Finsbury Circus, on June 10,

Mr. H. N. LAY, C.B., in the chair.

Mr. F. F. WILSON (the secretary) having read the notice convening the meeting,

The CHAIRMAN said—Gentlemen, as this is purely a formal meeting—the first statutory meeting of the company—at which it is not usual for any business to be transacted, it would not in ordinary course have been necessary for us to make any report, but under the peculiar circumstances of Okel Tor, no prospectus having been issued, the directors thought that it would be better to furnish you with a slight sketch, showing the position and prospects of the company, which the secretary will now read.

Mr. WILSON (the secretary) then read the report of the directors.

The CHAIRMAN: It may interest gentlemen present if I supplement the directors' report by giving a short history of Okel Tor, for the purpose of showing why it is now so valuable as compared with what it was in former years.

The mine was first started with the view to cutting a possible lead lode. At the 20 a large lode was cut, now called the north lode, containing copper and arsenical ore, but on sinking from the 20 to the 35 the main body of the lode was missed though the following of a branch on the south part of the lode, separated from the main lode by a channel of killas 9 or 10 ft. thick. Operations were carried on for some years on this part of the lode, until the workings became too poor to yield copper in paying quantities. Cross-cuts afterwards driven at the 50, 65, and 80 fm. levels resulted in the discovery of two lodes south, which for three years yielded an output of 150 tons of copper monthly, after which the samplings gradually fell off. But in the meantime tin had been discovered at the 65 and 80 fm. levels, stamps were erected, and I believe some 8000t worth of tin was sold from the eastern part of the mine. The levels were, however, very far from the shaft, the distance to tram being some 250 fms., and the levels being besides badly carried, it was found difficult to get the tin with sufficient speed to keep the stamps supplied. The discovery of tin having, moreover, prompted the removal of the copper plant, further progress was arrested, and the mine came to a stop.

The principal need was a new shaft east, and if this had been sunk it is certain the mine never would have stopped. Five years ago the property came into my hands, and neither labour nor expense, I may say, were spared in the endeavour to ascertain what Okel Tor really contained, since from the way in which previous operations had been conducted there was evident reason to suppose that more mineral had been left than had been taken away. This conjecture became a fact.

We cut the main north lode 24 fms. from our engine-shaft, in which winzes have been sunk from the 20 to the 80, solid throughout. This is a magnificent lode, averaging 10 ft. in width, composed of arsenical ore, intermixed with copper ore for a distance of 60 fms, and for a depth of 60 fathoms. By this discovery a new mine west was, in fact, opened.

The second discovery made was of a splendid lode in the eastern part of the mine, 200 fms. east of our engine-shaft, which averages 15 ft. in width.

This has been proved for 70 fms. in length and for 30 fms. in depth, from the 50 to the 80; it is still holding coming back west, and for aught we know may go right through the mine.

The credit of these discoveries belongs to Capt. Bulford, upon the possession of whose services the company is to be congratulated. Coming to the surface we have sufficient plant erected for the production of 100 tons of arsenic per month, and as soon as the tin plant is erected our return of tin, copper, and arsenic will be largely increased.

We are turning out arsenic to the value of 50%, a month, a not unsatisfactory result when the work in hand, the sinking of two shafts and the erection of tin plant, is considered. While waiting for the stampa every preparation is being made to ensure a large and regular output.

I may mention the new shaft west has been holed to the surface from the 20 fm. level under adit. It is being now actively worked, receiving residue from surface to fill up gunnies, which will enable us to remove the entire lode with little expense for timber.

The great width of the lode has rendered the keeping of the sides with timber excessively costly as well as dangerous, and at most points altogether impracticable.

Hence the necessity for this new shaft, which has been made sufficiently large to serve as a hauling shaft later on.

It is 9 ft. 6 in. 4 ft. with a single skip and residue pass.

The new shaft east will be 12 ft. by 6 ft. within tim.

ber, which will give us room for a double skip-rod, alignment of rods for sinking under the 80, and a footway.

This shaft, which was commenced on the 16th ult., will give us enormous resources, besides enabling us to sink in the intermediate lode, which improves for the every fathom in depth.

The opinion of those most competent to judge is that we may count upon a good deposit under the 80.

The tin works are being rapidly proceeded with, and as soon as they are at work good returns of tin, copper, and arsenic may be counted upon.

With the resources which I have myself proved, as soon as the new shaft is down, which I hope will be a fast accomplish within 12 months from this date, the returns from the mine will be, I can safely predict, satisfactory to all concerned.

I have just given a brief sketch of the position of the company, and shall be happy to answer any questions, and welcome the visit of any gentleman who would like to see the works for himself, which are quite worth a visit.

The machinery and plant are in good order, and all points underground are reported as looking exceeding well.

The CHAIRMAN, in reply to a question, said that 50% a month of arsenic would pay the ordinary working expenses of the mine.

Mr. WILSON said as he had a good deal to do in forming the company, and as his friends were largely interested in the undertaking, probably to the extent of half of the whole company, he would simply say he was down there on Tuesday last, and went all over the mine. He had previously seen the mine some time ago, but not accurately examined it. He went all over the mine in company with their very able agent, and he received from him an impression much greater of the value of this concern than he had even when he introduced it.

He knew something about this mine, and could speak with very great confidence respecting it. He must say he was greatly pleased with what he saw the other day. He felt safe in saying that when he met them 12 months hence they would be able to say that not a single statement made in the first reports had been found to be in the least degree exaggerated.

Several gentlemen went and saw the mine on behalf of intending investors, and one of the directors was extremely cautious, and sent Capt. Josiah Thomas, of Dolcoath, and upon his report, which was never published, he was so satisfied that he not only bought his shares but became a director. He referred to Mr. Low. Mr. Baxter, who had been largely instrumental in forming this company, and in inducing his friends to take shares, sent also Mr. Henderson, of Truro, who was a well known man, and one of considerable authority, and upon his report Mr. Baxter entered on this matter with the zeal and pluck with which he took up everything. The result was that in 48 hours every share was underwritten, without a prospectus, without a single puff or paragraph, without a single circular, and without a single meeting of gentlemen interested. He thought they would find that the statements made would be fully borne out by facts and results, and he thought those results would astonish even the most sanguine shareholders here to-day. He should like the shareholders to go down to the mine, which was in a most beautiful part of the country, on the banks of the river.

They had their supplies brought up to their own quay, and the ore sent

away. There was no labour or carriage; it was all done in as cheap a way as possible. There was a ready market for their stuff. It was a great mistake to suppose that for arsenic there was a limited market; there was a good market, and likely to be for some time to come. But arsenic was not the mineral which was going to make the good fortunes of this company. Under the arsenic would be found deposits of tin, or tin and copper. In the meantime, they would have the arsenic to pay their expenses, and to pay them he hoped very handsome profits.

Mr. Low said he had been twice down the mine, and was there about three weeks ago, and was thoroughly shown over the mine by Capt. Bulford, who appeared to be an able, energetic, and conscientious manager. He could only say so far as he could see that the anticipations of Mr. Wilson were not one whit exaggerated.

Mr. WILSON: I believe it is going to be made one of the greatest mines in Cornwall.—The CHAIRMAN: I do not think many mines can show a better lode proved for 60 fms. in depth.

The CHAIRMAN, in reply to a SHAREHOLDER, said they calcined the ores, and then precipitated them, but some calcined themselves, on account of the presence of sulphur.

Mr. WILSON added that whatever the price of arsenic might be they could supply it cheaper than anybody else, from the size of the lode, the position of the mine, and the cheapness with which it could be worked.

A SHAREHOLDER said he had listened with great pleasure to all that had been said, and to the confirmatory statement made by Mr. Wilson. He was convinced that this mine was one of the most wonderful mines of the present day, but he would like to know what their working capital consisted of? How much money they had in hand to carry on this important and extensive work.

The CHAIRMAN replied that the amount set aside for working capital was 10,000L, which was quite ample for all their needs, and not much of that so far had been expended. The mine was paying working expenses, and expenditure would be for machinery and plant. The moment they got up the tin plant they would make a good profit.

On the motion of Mr. SCHOFIELD, seconded by Mr. F. L. STOUT, a vote of thanks to the Chairman and directors, the secretary, manager, and staff then terminated the proceedings.

AGENTS' REPORT.

June 15.—The lode in the 80 fathom level is improving in appearance, producing 12 tons of arsenical ore per fathom. No. 1 stope, in the bottom of the 65 fathom level, west of the winze, is producing 20 tons of arsenical ore and 1 ton of copper ore per fathom. No. 2 stope, east of the winze, is producing 18 tons of arsenical ore and occasionally good stones of copper ore. No. 3 stope, in back of the 65, is producing 10 tons of arsenical ore per fathom. No. 4 stope, in back of the same level, is producing 22 tons of arsenical ore per fathom. No. 5 stope, in bottom of the 50, produces 30 tons of arsenical ore per fathom. No. 6 stope, in the bottom of the 20, is producing 12 tons of arsenical ore per fathom. No. 7 stope, in the back of the 20, is producing 18 tons of arsenical ore per fathom. The new shaft east is going down favourably.—H. BULFORD, J. RODDA.

THE TAMAR SILVER-LEAD AND FLUOR SPAR MINING COMPANY.

The third ordinary general meeting of shareholders was held at the Masons' Tavern, on Saturday,

Capt. A. S. GILBERT in the chair.

Mr. W. H. PYNE (the secretary) read the notice convening the meeting, and with the consent of the shareholders present, the directors' and agents' reports were taken as read.

The CHAIRMAN moved the adoption of the report and balance-sheet, explaining that the reason it had not been earlier in the hands of shareholders was on account of the Whitsuntide holidays intervening, and the auditor being unable to prepare it before; however, it was now before them, and he should be happy to explain any item that did not appear sufficiently clear to them. He might mention that as the application for the recent issue of unallotted shares (which had been offered to shareholders only) had been 1000 in excess of the number which the directors first proposed to issue, they had decided (so as not to cause any disappointment) to issue another 1000 shares, making 3000 shares in all. The proceeds from the sale of these, coupled with the value of the silver-lead and fluor spar raised during the past year, brought their present credit balance up to 5522L 10s., which was very satisfactory; and with this sum in hand they would be able to develop their new discovery speedily, and to profitable advantage. Captain Goldsworthy was present, and could answer any technical or other question in regard to the operations at the mine.

In answer to Mr. VANS AGNEW, the CHAIRMAN stated that since March 30, the date up to which the accounts were made, the sum of 1007L, due to the company on calls on shares had been reduced by about one-third.—Mr. G. VANS AGNEW seconded the adoption of the report and balance sheet, which was then carried unanimously.

Several shareholders, who showed some knowledge of mining, put a number of pertinent questions to Capt. Goldsworthy, and received satisfactory replies eliciting from him that the recent discovery was of immense importance to the shareholders. He stated, moreover, that every available piece of ground had been taken up in the neighbourhood in consequence of this discovery, which had created much excitement in the district.

Mr. GREGORY asked whether this discovery was made upon the celebrated South Tamar lode, and whether it was probable that in driving south upon it a large body of silver-lead might be laid open?—Capt. Goldsworthy replied that it was decidedly the South Tamar lode, and at any day they might cut into a great deposit of silver-lead. They had cut the lode some 55 fms. from surface in virgin ground.

The Rev. J. FLETCHER thought it would be more satisfactory if Capt. Goldsworthy would address the meeting, as he could not hear the replies.

Capt. GOLDSWORTHY then explained the operations which had been carried on during the past year, and that their principal object had been to get south of the cross-course, and intersect the South Tamar lode. This was a work of considerable labour and anxiety, for they found the ground very hard, and they had to drive a considerable distance before they got through the cross-course and away from the influence of the slide. When clear of this they crossed east and west, and found the lode in their eastern drivage. He was pleased to say that it maintained its size, was a strong well-defined lode, with a gentle underlie east, letting out large quantities of water, and, in his opinion, likely to prove a most valuable discovery, and handsomely repay the shareholders.

In the western cross-cut indications were also very favourable for intersecting another lode. He would propose shortly to sink a new shaft close to or on the course of the lode to open out this part of the company's property, it was necessary for ventilation as well as for economically returning the ore, for the point where this discovery was made was some 300 fms. from their present engine-shaft; when this work was done the company would practically be in possession of two mines, the old and the new, the former was by no means exhausted, silver-lead and fluor spar were being raised from it in fair quantities, and he was sinking a winze from the 37 to the 57 (cutting out the 47 which was some distance behind), and was of opinion that this operation when completed, would lay open a valuable section of ore ground. (Applause.)

In answer to several shareholders, Capt. GOLDSWORTHY said the mine was amply provided with machinery and all requisites for present requirements, the company had nearly ½ mile run upon the course of the new lode. He should put the new shaft down near or upon it, both rising and sinking, which would be less expensive, and should it be in the ore-bearing part the produce would go as follows:

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MR. CHARLES J. SIMS: You, sir, have already spoken so fully as to the points in operation that there is almost nothing left for me to say. It shows that when you were visiting the mine you grasped the whole situation. There is just one point you have omitted to touch upon, and that is the allusion to water power. We should not forget that this is a very important matter. We have there a large stream of water, which forms the western boundary of the sett, and we can put up a very large water-wheel, which will give us ample power for all we want to do. When you consider that we are some distance from the shipping port, and that coals would be an expensive item—that is a very important point. With regard to streaming, that is really washing out the tin from the alluvial soil very much as the gold was washed out in Australia in bygone times. In all the rich districts of Cornwall the surfaces have been streamlined. I would not give anything for a tin mine in which streaming had not been carried on at surface. There is no doubt the tin of that district has been worked as far back as the time of Queen Elizabeth, and possibly before that. The district is rapidly becoming of note in the mining world. Seats are being taken up now which were not looked at before. As regards this mine, I have known it since ever the first sod was turned, and I am pleased to say my late visit has made me think more highly of it than ever before.

The proceedings closed with a vote of thanks to the Chairman.

THE PIONEER MINING COMPANY.

The second ordinary general meeting of shareholders was held at the Cannon-street Hotel, on Wednesday,

MR. HENRY HAYMEN, the Chairman, presiding.

The CHAIRMAN: The solicitor will read the notice calling the meeting. The secretary is at the office certifying transfers, and, therefore, he cannot be here to-day.

The SOLICITOR read the notice.

The CHAIRMAN: Gentlemen, will you have the report read, or taken as read?—The report was taken as read.

The CHAIRMAN: Gentlemen, you will, if you have carefully read the report from the mines, find that in the Pioneer Mine—that is, the first mine the company purchased—we have within the last few weeks come into a new copper lode. The samples taken from that new copper lode have been assayed by Johnson and Sons, the assayists to the Bank of England, and they give the extraordinary analysis of 18 per cent. of copper. When the company was started we anticipated that if we could get an average yield of 8 per cent. the profits of the company from that mine alone would be equal to 80 per cent. upon the capital of the company. We have very little doubt, and our managing director and mining engineer has also very little doubt, that as we go down in depth we shall find the Pioneer—that is, the Merlonthshire Mine—to be a very valuable one, but at the present time the mine which will open out quickest, and from which we shall get in a very short time an amount of mineral which will enable us to declare a dividend, is the Pant-y-Pydey. With reference to the Pant-y-Pydey Mine, I may state that since the date of the report, published in the directors' report, we have received from our agent and engineer in Holywell the following report, which I will read to you. There has been no time to circulate it:—

June 11.—I beg to furnish you with the following report for meeting. As you are aware, a vast amount of work has been done at the mines since February last in the shape of repairs to the various shafts and levels. This has cost a heavy sum, and, together with the cost on timber and machinery, has up to the present time formed the principal item in the expenditure. To a great extent this has been completed, and our attention is now being directed to the opening out of the mine by sinking shafts and driving levels. Blackwell's shaft has been sunk to the 100 yards, and ledge-cut and cross-cut driven north about 9 yards. The loose channel of ground which usually accompanies the hanging side of the Pant-y-Pydey lode, consisting of boulders of limestone and clay, has been reached, and we have been enabled to make much better speed lately, the price for driving having been reduced to 30s. per yard. I feel pretty sure that there is no hard ground intervening between the present forebreast and the footwall of the Pant-y-Pydey lode, and although there may be a few yards to drive to reach it, it can be done quickly, and at a small cost, and judging from the richness of the lode both east and west from this point, we may fairly calculate on making a valuable discovery at an early date. The engine-shaft has been repaired to the 60 yard level, and the 60 east cleared and secured about 90 yards, and the end reached. A few yards behind the end there is a nice lode about ½ yard to be seen in the roof of the level, containing a good mixture of lead. Close to the forebreast a level has been driven south on a small cross lode; this we are now clearing. Whether this is a portion of the Pettlecot lode or not I cannot yet say, as sufficient cannot be seen of it to warrant me in expressing an opinion either one way or the other, but I shall be able to say shortly. The engine-shaft is being cleared below the 60 with a view to draining the lead ground, so as to get a trial pump down in the ore. This has been in abeyance for the last few days owing to the engine being required for winding night and day from the 60; the work, however, is now being proceeded with, and in a few days I hope to be able to report good progress. The new shaft, on Galop Bell lode, has been sunk about 6 yards from surface, and let per contract at 42s. per yard. The object of this shaft you know; it being a main shaft from which to drive levels to carry off the whole of the water from other parts of the mine. When completed we shall have all the ore ground drained naturally, and shall be able to win it without the aid of pumping machinery. At Bessie's shaft we have nearly completed the repairs, and shall be able to commence winding ore from the 30 by the time this reaches you. We have had rather a troublesome job here, as the shaft had gone badly out of order, and required a deal of timber. I am pleased to inform you that this section of the mine looks well, and we are now in a position to make returns of ore therefrom. The ore appears to be in a flat, and in a north and south vein crossing it, and as there is a very large tract of unexplored ground in this direction it is likely we have large deposits of ore in connection with that already discovered. At any rate, I will challenge the district to show finer ore than we have, and I am sending you a lump per rail on Monday for the board to see the quality. We shall want either a small portable engine or a horse whim for winding at this shaft, the ground being of an easy and soft nature for exploring. There will be a large quantity to wind; we must, therefore, be provided with some means better than manual labour for winding the stuff to the surface.

In conclusion I must congratulate you on the way in which the mine is turning out, and I am confident that the discovery of ore at Bessie's shaft is only the precursor of other and more important discoveries, and I have not the least doubt that your property will yield immense quantities of lead and pay you large dividends.—**H. B. VERCOE.**

I do not know whether any of you have seen the *Mining Journal* of last week, but if you have not and if you refer to it, you will find the following letter from some person who has inspected the mine:—

"Having seen these mines referred to two or three times of late in the *Journal*, and having on the last occasion noticed the public were invited to 'come and see,' I accepted the invitation, and without any ceremony I called at the mines, and found both agents and workmen busily engaged—in fact, the place just now is a regular hive of industry. I was shown over the mine from one end to the other, and, by the way, it is a very extensive property, and judging from the ore being raised and the prospects of other important discoveries I am convinced that there is a great future in store for the shareholders. I am informed that the directors in the Pioneer Company are also directors of the Date Coffee Company, which is one of the most successful companies that have been formed of late years; but, great as its success has been and still is, I venture to predict a greater prize in store for them at Pant-y-Pydey Lead Mine. I have known the Halkyn Mountain district for many years, and I have often made a tour of inspection through the principal mines, but never in my life have I seen finer blocks of lead than are being brought to the surface in Pant-y-Pydey from the eastern portion of the mine, and I am informed there are several other important discoveries on the eve of being made. I shall expect to see large sales of ore at an early date, and I am confident shares will speedily rise in value cent. per cent."

Now, gentlemen, since that date we have received a block of ore from the mine, about 1½ cwt. more or less, considerably over 1 cwt., which you can see at the company's office. We could not bring it here, and I do not hesitate to say that a finer piece of ore has never been sent to the London market. Call and see it for yourselves, and bring your friends with you who are shareholders, and if they are not shareholders we shall be glad to see them. This morning, before we came to the meeting, we received from Mr. Vercoe the following telegram:—"Returned to Holywell last night; been at Pant-y-Pydey this morning. Getting splendid ore at eastern shaft equal to sample sent." That is the sample at the company's offices. We had also received the following letter from Mr. Vercoe:—

"We have suspended the driving of the deep adit south on lead vein for the present, and placed the men to cross-cut east, to intersect the new copper lode. I calculate on having about 5 yards further to drive to reach it, and judging from the very promising appearance where last intersected, together with the fact of its being nicely mixed with rich sulphuret of copper, I expect to find it more productive in the cross-cut now driving, particularly as it will be nearer the point of junction with the copper lode, and have some yards of backs more than when last seen. The lode in deep adit on lead lode, over new sump, has been completed, and sinking sump commenced. I have let a contract at 50s. per yard; the lode is of a very promising nature, composed of beautifully crystallised quartz, clay, sulphur, and spots of lead. I am strongly of opinion that this lode will produce lead in quantity at a fair depth, and if we are not prevented by an influx of water, I hope to reach the lead-bearing ground without the aid of machinery; this sump will also prove the new copper vein in depth, and I am very sanguine of success in both veins below the level of the valley."

With these few remarks I will move the adoption of the report and accounts, and I will simply add that, in my opinion, and we have had the benefit of the experience of Mr. Adley, who thoroughly knows the mine, and who spent five or six months upon the mine last year, and who has only within the last two or three months been again and visited the mine. My friend and colleague, The O'Reilly, knows the Pant-y-Pydey thoroughly well, and will second the report, and give you his own idea of it, and I do not hesitate to say that we have got in our hands one of the richest lead mines which has ever been brought before the public. I will now move that the directors' report and the accounts be approved and adopted; but before putting it, I will sit down to hear any questions which any shareholder may wish to put. (Loud cheers.)

The O'REILLY: I beg to second the motion which has been made by my friend, the Chairman. I have been intimately acquainted myself with the Pant-y-Pydey Mines for many years, and have frequently visited the whole of the underground workings, and it is my firm conviction that in that mine we shall very shortly own one of the very finest properties in Wales. We have every reason to be satisfied with the zeal and ability of our local manager, Mr. Vercoe, and the whole general direction of the workings of the mine is under the superintendence of my friend and colleague, Mr. Adley, a civil engineer of very great experience. The Pioneer Mine, gentlemen, is no ordinary venture brought forward merely with the view of placing the shares in the hands of the public. The affair is intrinsically sound and honest in every way, and I feel sure that it is only a question of a very short time before you will be amply rewarded for the confidence which you have placed in the undertaking and in its present direction. I beg to second the motion of the Chairman; that the report and accounts be received and adopted.

THE CHAIRMAN: Has any shareholder any question to put before I put it to the meeting? There being no response,

THE CHAIRMAN: Well, gentlemen, those who are in favour of the adoption of the report and accounts will kindly signify the same in the usual manner.—On the contrary?

The motion was carried unanimously.

THE CHAIRMAN: The next question is the re-election of the auditor, gentlemen, and I propose that Mr. G. H. Elyard Brown, our auditor, be re-elected. That is a shareholder's question, and I shall be very glad if some shareholder in the body of the room will second that.

MR. ELDROY: I beg to second that.—The proposition was put and carried unanimously.

THE CHAIRMAN: That, gentlemen, concludes the business, and I can only say what I have said before, that I believe we have got a mine which has never been surpassed yet. Come to the offices, take anybody you like to them at any reasonable time, and see the sample that is there. Then compare that with this telegram and the report I have read to you to-day and I think you have all the information that we can possibly give you, and we hope—and I do not think there is any doubt about it—that before the close of the present year we shall be calling you together with the view of paying a dividend. That concludes the business.

MR. JOHNSTONE: I beg to propose a vote of thanks to the Chairman for his able conduct in the chair.—**A SHAREHOLDER:** I shall have great pleasure in seconding that.—The proposition was carried.

THE CHAIRMAN: Gentlemen, I can only repeat that we are very much obliged to you. Your interest is our interest, and I am quite sure that what you have heard to-day will find the result of the working of the next few months fully verify. We are not infallible, and we are liable to accidents the same as other people are. But the work has gone on now so carefully and so well that I only wish you would all of you go down and look at the mines yourselves, and I hope that we would not be far more astonished than we have been during the last few weeks I am very, very much mistaken.

A SHAREHOLDER: Would you mind reading the telegram again?—**THE CHAIRMAN:** Yes; and I will read the piece out of the letter, because I do not think you would follow it without—that is, the letter of January 13. It says:—"At any rate, I will challenge the district to show finer ore than we have, and I am sending you a lump per rail on Monday for the board to see the quality. We shall want either a small portable engine or a horse whim for winding at this shaft. The ground being of an easy and soft nature for exploring there will be a large quantity to wind. We must, therefore, be provided with some means better than manual labour for winding the stuff to the surface. In conclusion, I must congratulate you on the way in which the mine is turning out, and I am confident that the discovery of ore at Bessie's shaft is only the precursor of other and more important discoveries, and I have not the least doubt that your property will yield immense quantities of lead and pay you large dividends." The telegram referring to that lump, which is at the company's office, is as follows:—"Returned to Holywell last night; been at Pant-y-Pydey this morning. Getting splendid ore at eastern shaft equal to sample sent," and that sample weighs over 1 cwt.—The meeting then closed.

WALKHAM UNITED MINES.

The statutory meeting of shareholders was held at the company's offices, Cornhill, on Monday—**Mr. A. N. SHERSON** in the chair.

The CHAIRMAN explained this to be the statutory meeting of shareholders, held according to Act of Parliament, and although not necessarily a business meeting yet the directors would be pleased to answer any enquiries respecting the mine and the affairs of the company. He had recently visited the properties at Tavistock, and could say he was highly satisfied with the position and prospects of the mines, and was very much pleased at the practical and economical way in which the company's affairs were conducted. The repairs necessary on re-starting the mines would, of course, take some little time in effecting, but the work had been pushed on vigorously, and during the 10 weeks that have elapsed since work was commenced, the surface buildings, &c., have been repaired, improved dressing appliances and machinery have been put in where required, and matters generally had assumed a practical business-like aspect on the property, while operations underground have been directed to getting out the water and opening up the mine as fast as possible to admit of making returns and profits, an object the directors were anxious and persistent in accomplishing as quickly as was practicable and expedient, and he was pleased to say Capt. Phillips had made progress enough in the mines to enable him to promise to commence making sales of tin within so short a space as three months from the present time. This cannot but be considered as highly satisfactory, as it is usually the case that many months, and sometimes years, elapse before actual returns can be made. Additional value was being to a certain extent placed in the company's property by the workings of neighbouring mines, whose ledges were proved to be running directly through the Walkham sett, and the exploratory work being done there would, of course, tend to the advantage of this company.

MR. F. E. YOUNG (secretary) read the subjoined report from Capt. Phillips:—

June 11.—In compliance with your request, I beg leave to hand to you the following report for the meeting. Our attention has been directed at the surface to the erection of new workshops, storerooms, &c., for centralising the works to command the mines both sides of the river, and in improved arrangements for a more modern and economical mode of dressing the ores, whilst the greater portion of the machinery, houses, and sheds have received substantial repairs. The present number of men have been efficiently supplied with working tools and material, and rail iron provided for some time to come. I estimate that in the next three months our cost will be about 500%; this will provide for keeping 20 men employed underground, and to put the mine in good working order, including arrangements on the dressing-floors for a considerable monthly return of tin. The above sum will also provide for completion of the repairs to the adit level in the lead or cross-course in order to extend the same to the intersection of the tin and copper lodes. The clearing up of the new shaft, west of the river, to resume sinking the same to communicate to the sump winze in the deep adit level; the preparation of the engine-shaft, east of the river, for sinking; the drivage of the adit level east on the north tin lode; the clearing of the winze in the adit level on same lode, and drivage of the 20 east to communicate to the sump winze, whereby I have no doubt upwards of 3000t. worth of tin ground will be speedily laid open for profitable stonings to assist in the development of the mine, and from the very masterly and fine appearance of the lode at the 20, the deepest point reached in this lode, as well as the improved character of the lode in the adit level east, I am of opinion the mine will soon develop into considerable importance. The productions of the different points being operated upon on this lode confirm the favourable reports that have been made on the property. I am led to hope, even from the present limited scale of working, that in about three months 2 tons at least of tin will be prepared for market, and basing calculations upon the probability of effecting the communication referred to above very soon we have the promise of being able to make further important returns during the present year. The mine is being dialled, and I hope soon to be able to present you with a good working plan. The operations now being carried on in the adjoining mine—Sortridge Consols—will shortly indicate the position of the same lodes in this property, as they undoubtedly traverse this sett, and I hope shortly to be in a position to advise some trials being made on the southern tin and copper lodes.—WILLIAM PHILLIPS.

A SHAREHOLDER asked if the directors were themselves satisfied with the state of the mines and their local management, and if they thought dividends would be earned for the shareholders within a reasonable time; and was answered that the directors considered Capt. Phillips a respectable and reliable authority, and that they had the utmost confidence in him; he was not a sanguine man, and they felt safe in trusting to him. He had reported what he could actually see before him, and they considered this augured well for their future. If at a shallow depth he could lay open reserves of ore ground, and estimate returns of tin, they might take it for granted that the property was not an ordinary one, and they hoped for and expected good and profitable results of its working.

A cordial vote of thanks to the directors and Chairman was then unanimously passed.

WATSON BROTHERS' MINING CIRCULAR.

WATSON BROTHERS
MINEOWNERS, STOCK AND SHARE DEALERS, & C.

1. ST MICHAEL'S ALLEY, CORNHILL, LONDON.

If a man relinquishes his shares in a mine when that mine is poor he cannot claim them again if the mine should afterwards turn out rich. This has been tried and decided over and over again. The first case of the kind was in 1809. Mr. Joshua Rowe, of Torpoint, with his co-adventurers, started the Old Crinnis Mine, near St. Austell—and, by the way, one of the oldest agents in Cornwall at the time, Captain James Michell, had the year previously said that the mine was not worth a "pipe of tobacco." For a long time it seemed like it, for it kept so poor that one by one the shareholders relinquished their shares and got out of it, and Rowe and a few friends were left to themselves, and had to provide for the entire costs. But they stuck bravely on, and then one day a mass of ore was found a few feet from the surface, and the old shareholders came forward and claimed the shares they had thrown up when the mine was poor. Rowe resisted this, and a lawsuit which lasted some years, and cost 20,000/-, was commenced. The result was that Rowe obtained a verdict in his favour. Those who had refused to pay calls when the mine was poor were not allowed to have their interests restored to them when made rich through no outlay of theirs, and in 4½ years afterwards the mine made Rowe and his friends a clear profit of 168,000/-.

Soon after our last, a telegram was received that the 90 in Carnarvon had improved to 3 tons of copper ore per fathom.

Cook's Kitchen's are advancing for this reason. The boring machine is making rapid progress in communicating the bottom level with the rich winze; and after this communication has been made, and it may be this month, the returns of the mine can be doubled.

The 154 driving west on the Great Flat lode, at West Frances, is approaching the run of tin ground passed through in the level above, and is improving.

There is a splendid lode in the 60 west at South Condorow, and the Grenville lode, in the new western ground, is opening up quite a new mine.

"A" saw some extraordinary statements in the prospectus of a mine, and the directors were Barons and "Honourables." He also saw the shares quoted at a premium. He applied for some hundreds of them and got them. He paid 5s. upon them and then tried to get the premium, but it had vanished. He then tried to sell for what the shares cost him, and found them quite unsaleable. "A" now asks us what he is to do, as he *cannot* pay up the shares to 1*l*. each? Had he applied to us before he applied for the shares we might have advised him, but it is too late now. And this case only illustrates our remarks a fortnight ago that half of the applications for shares are on the faith of the deceptively quoted premiums, and hundreds of people will be seriously crippled, if not ruined, by having to pay up in full for all the shares they have applied for in different companies. This is the "Limited" Liability System! and in the meantime promoters and directors, who know as much of mining as the "Man in the Moon," flourish.

We regret to announce the death of our old friend Mr. Jehu Hitchins, one of the oldest and most respected of mining engineers. Few men had more experience in practical mining and engineering than he had, and no one had better opportunities of appreciating his sterling honesty and integrity than the writer. In fact, he had for us, and at our recommendation, inspected mines in almost every quarter of the globe. It is nearly 40 years since he surveyed for us and our friends the Island of Michipicoten; afterwards he went to Jamaica, to Australia, New Zealand, Newfoundland, and several mining districts on the Continent of Europe; and his opinions were always respected and usually correct. A few years ago we raised a considerable subscription, and presented him with a handsome testimonial in recognition of his many services. Only a week or two ago he was here seemingly in good health and all his faculties clear, though upwards of 80 years of age, and his death has been somewhat sudden.

The Bratsberg is a *bona fide* freehold property working to a profit and capable of great extension, and therefore one that can be recommended. There are said to be 500 tons of ore on the dressing floors, averaging 21 to 22 per cent.

Shares are quoted at a premium, but if our correspondent wants an allotment he can send his application to us.

East Blue Hills, then Blue Hills, Penhalls, Wheal Kitty (St. Agnes), West Kitty, and Wheal Friendship form a rich mining district, all on the same run. At East Blue Hills there is an adit which cuts the lodes 50 fathoms deep; here a discovery may be made any day, and the shares may be had at a low price at present.

We were among the first to call attention to South Caradon and the Caradon district, nearly 40 years ago, and were interested in most of the mines for a great number of years, and we knew something of the merits of most of the ground. When East Caradon were at 1*s.* 6*d.* each we bought them for our clients and sold them soon afterwards at 6*l.* per share. We should much like such a chance again; and we have obtained the finest and most important sett in the district, immediately adjoining South Caradon, and on the run of five important lodes. This we may introduce to our friends ere long as

work to prevent surplus water going down in the old mine. In the meantime we have erected new shears over sump shaft and other work necessary.

CROOK BURN.—J. Craig, June 10: The rise from the south cross-cut is now up a little over 3 fms. from the bottom of Tyne Bottom Limestone, and as soon as we are up 6 ft. more we will break into the vein. We continue to have the string of carbonate of lime in the north cross-cut, but have not yet cut anything with an east and west bearing. Little ground has been driven in this cross-cut during the past week, the men having been mostly engaged at the surface.

CWMYSTWITH.—J. B. Rowse, June 15: No improvement has taken place in the 15, driving east of Edward's vein, on the new lode; the lode although large, and letting out a good feed of water, is somewhat disordered by a soft joint crossing the level towards the north. The men previously engaged in stripping down the north side of Gill's lower level have been employed for the last ten days taking away an arch of ground below the level before laying down the railroad, therefore I have nothing new to report of the lode in the side. The lode in the underhand stope under the 15, at Kingside shaft, is holding down good, will produce fully 2 tons of lead ore per fathom. The stope in the back of the same level is not looking quite so well as we could have wished, but will yield about 1 ton of lead ore per fathom. The six stopes on the new lode are yielding on an average 14 cwt. of lead ore per fathom. Our blonde stope are not looking quite so well as formerly; the ground in most of them being hard, and spare for breaking. As no rain of importance has fallen since our last report our water is getting slack, and I fear our supply is not sufficient to last the week out, as we have only about 3 feet in one of our ponds.

D'ERESBY MOUNTAIN.—William Sandoe, June 15: The No. 6 continues to look very favourable; the lode is worth full 15 cwt. of lead ore per fathom. The ground still keeps stiff, and the end somewhat spare for driving, but it is being pushed on as fast as possible, with a full pare of men, night and day. At the No. 5 the stope north of the sump has rather improved, and we expect it to much further improve as we go north. In the stope south of the sump the men during the past nine days have been engaged rising up in the soft part of the lode from the extreme end of the workings to the No. 5 level, which has been driven about 10 fms., south of the great stope. This, I am glad to say, we got through yesterday, and shall now start stowing from the bottom of the No. 5 on a large piece of new ground, which I hope will yield good lead. Our crusher has undergone some repairs during the past few days, but has again got to work, and we have a large lot of accumulated stuff before us to treat, which we enter into with spirit.

DERWENT.—J. Morpeth, June 15: The 95 east, on middle vein east of Jeffries' shaft, continues to yield 25 cwt. ore per cubic fathom, or 1/3 ton for the full width, 9 ft. The flats in this level, both on the north and south side, are worth 20 cwt. ore per cubic fathom. No. 1 stope in the back yields 15 cwt., and so does No. 2 stope; each is 4 ft. wide. The stope over the 93 west of shaft produces 14 cwt., vein 5 ft. wide.—Westgarth's Shaft: The stope on the middle vein at the 93 east are worth 12, 12, and 14 cwt. ore per fathom respectively; vein 3 ft. wide.—North Vein: The 93 east is worth 12 cwt., the 93 west, 15 cwt., and the stope in the back 15 cwt.; vein of the same width, 4 ft., all through. We are still pushing the 97 cross-cut north. The only change in the end is there is a little dampness at the coal-bed, indicating more vein ahead, which encourages us to persevere. In the back of the 74 west of Westgarth's there is not much change; vein 3 ft. wide, and worth 13 cwt. Machinery all working very well.

DEVON COPPER AND BLENDÉ.—W. Skewles, June 15: The clearing of the shaft is progressing satisfactorily, and we hope soon to be to the 62 fm. level. Men are now engaged in running a pass through from the 50 to the 40, which when done will give good facilities for stowing the ground between the two levels as well as giving increased ventilation. Stacey's pitch in the bottom of the 50 is cleared up for about 6 fms. deep, with an improving lode in depth in both the western and eastern ends. I hope to be able to report more fully on this in my next.

DEVON GREAT UNITED.—Isaac Richards, June 15: Very satisfactory progress continues to be made in cutting ground and other work in connection with fixing the plunger lift at the 93, and we hope to have it completed in the course of a few days from this date. In the 60, west of Willersford's shaft, on the Capel Tor lode, the lode is 2 ft. wide, and producing some copper and muntic ore of good quality. In the 50, west of Watson's shaft, on the Capel Tor lode, the lode is 3 ft. wide, of a very promising character, and producing saving work of copper and muntic ores.

DUBBY SYKE.—G. Bell, June 10: There is nothing new to report from here this week. We have been drawing the work out of the level, and consequently have not got much done in the forehead. The forehead keeps about the same as last reported.

EAST BLUE HILLS.—S. Bennetts, June 16: The clearing of the adit level east is progressing satisfactorily. The 25 east has just been found by means of a rise from the 30; it is being cleared and secured with all speed, the stuff being got away through the 30. Somewhere in this level not far to the east of the present end is where report says, a good piece of tinny ground exists, hence the object of clearing it out.

EAST CHIVERTON.—R. Southey, June 16: Mine looking equally well in the 90 end west, worth 2½ tons of rich silver-lead ore per fathom. Stoops in back of same are improved. Shall offer for sale a prime parcel of ore next week—fully 50 tons.

EAST DARREN.—T. Garland, June 15: The 104 west, on the south lode, has been driven during the past month 2 fathoms. In a lode from 2 to 3 ft. wide, yielding a little lead ore, but not sufficient to value. The 92 west has been driven 5 ft. 6 in. on a lode 6 ft. wide, hard for exploring, being chiefly composed of hard beds of grit, clay-slate, carbonate of lime, and lead ore, yielding of the latter about 10 cwt. per fathom. The cross-cut north, in the 89 west, has been driven 5 ft., through ground containing branches of ledgestuff, spotted with lead and muntic. The 56 east, on main lode, has been driven 2 fms. 3 ft. on a large lode, which yielded a small mixture of lead ore, but the present end is in disordered ground, and unproductive. The stope and tribute pitches throughout the mine have failed in average yield of ore during the past month, which I am sorry to say will render us unable to sample our usual quantity of 20 tons monthly. The machinery is in good order, having an ample supply of water for pumping, drawing, and dressing, which is being pushed forward with all vigour, while our large reservoir remains at about two-thirds part filled with water.

EAST HERDOSFOOT.—June 15: We have completed the lobby, and are proceeding satisfactorily with the cross-cut east towards Bewes lode, which will be reached by a few fathoms driving, and shall then push forward the drivage on the course of that lode with all speed to the point underneath, the coasteon pit in which the rare specimens of gossan interspersed with silver-lead ore sent to you were discovered. No. 1 lode is without any material change since last reported; it continues to yield excellent stones of ore. Immediately it is decided at which of the points set forth in the plan the new sump shaft shall be sunk and the pumping machinery erected every effort will be made to execute the work with all dispatch, and to open up the mine to the entire satisfaction of all concerned.

EAST ROMAN GRAVELS.—Arthur Waters, June 16: The lode in the 109, south of shaft cross-cut, is without change to notice since last week. The 97 south is in a lode 4 ft. wide, composed of good looking carbonate of lime, with stones of lead ore and blonde. The winze going down by the side of the main lode in the 85 south is being deepened as fast as possible. The 85, north of junction, on east part of lode, is worth about 1 ton per fathom. The cross-cut in this level, at a point about 50 fms. south of shaft, has intersected said division of lode, which is 18 in. wide, and worth about ¼ ton per fathom; we have every reason to believe that this part of the lode is standing whole by the side of present driftage all the way to the shaft. The stope in this level—one north and two south of winze—are together worth 5 tons per fathom. There are three pitches at work, worth together about 2 tons per fathom.

EAST UNY.—H. Eddy, J. K. Harvey, June 15: Since commencing to drive on the lode at the 82 west we have met with a decided improvement, our south leader of copper ore improving considerable in size and appearance, it being now 1 ft. 3 in. wide, and very rich ore. Our north leader is of the same size and value as reported last. We have every indication of having a very rich lode at this point, as our north and south leaders will form together in a few feet driving. At the 70 west the lode continues to improve. We hope to report something good here soon. In the cross-cut south we are still making fair progress.

EAST VAN.—W. H. Williams, June 15: No change to report from cross-cut B.B. In cross-cut E.E. we find the same condition of things as in the Trial cross-cut, where (perhaps you will recollect) we intersected a branch of lode about 2 fms. wide, and then crossed about 8 fms. before intersecting the best part of the lode, upon which the trial winze was sunk. We shall endeavour to get through this 8 fms. as speedily as possible, and hope to find at that point a great improvement.

EAST WHEAL CREBOR.—G. Rowe, June 15: The south lode in the 70, west of the engine-shaft, is 18 in. wide, principally composed of capel and spar, spotted with muntic and ore; the ground is making a little stiffer as we get off from the disordered strata in connection with the cross-courses, where we hope to find improvements in the lodes. The north lode in the 70, west of cross-cut, is small and unproductive, but is likely to improve as we get a little further west, and out of the influences of the cross-courses. The lode in the stope below the 60 is worth 8½ per fathom.

EAST WHEAL LOVELL.—R. Quintrell and Son, June 15: Setting Report: Sevorgan: The are four men opening on the lode east and west of shaft, which is now producing blustuff of moderate quality. The adit end to drive west, by four men and boys, at 50s. per fathom; the lode is yielding stamping work, and the ground is very favourable.—Tregonebir: Engine Lode: The engine-shaft is being sunk below the 32 as per contract set last month; the lode has improved, and is now worth 15½ per fathom for length of shaft. We have set a stope in bottom of the 32, east of engine-shaft, to four men, at 5½ per fathom; lode worth 8½ per fathom. Stope in back of 22, west of engine-shaft, to four men, at 7½ per fathom; lode worth 10½ per fathom.—Rogers' Lode: The shaftmen have not yet completed the contract set them last month in sinking the middle shaft below the 32; there is no change to notice in this shaft since our last report. The 32 to drive west of middle shaft, by two men, at 4½, 10s. per fathom; lode containing a little tin.—South Lodes: The 22 to drive west, by five men and boys, at 2½, 10s. per fathom; this end is in the cross-course. The cross-cut south at the 10, to drive by four men and boys, at 3½, 10s. per fathom. The 10 to drive west by two men, at 2½, 10s. per fathom; this end appears to be almost through the cross-course, and is producing a little tin. The winze to sink below this level, by six men, at 9½, 10s. per fathom; the lode is worth for length of winze fully 10½ per fathom, and appears to be improving.

FRONGOCH.—J. Kitto and Son, June 15: We have recently effected a communication from the rise above the 24 to the 10, east of Vaughan's shaft, which has rendered a good piece of blonde ground available for stowing. In this level, the 24, we are opening a valuable section of lead ore ground, which will yield fully 2 tons per fathom for about 10 fms. long; and, having provided cheap and expeditious means for filling the excavations as the ground is being worked, we are in a good position for taking away all the ore safely. In this as well as our other important places throughout the mine. At the different levels between the 24 and the bottom of the mine we are opening and working on several courses of ore ground, to which we need not refer in detail, the lode being large and regular; its value varies but very little from one month to another, though, we may remark, in the deep part of the mine the lead ground is looking very well, especially in the roof of the 154, where it is evidently improving as it is being opened in length, and on an average this stope will yield 2 tons of lead ore per fathom. The 149 is also turning out better than we expected; we have already gone through a longer run of productive ground than we anticipated, and the end is now being driven east in a good paying lode. As regards the other places to which we have referred, suffice it to say most of them are yielding either lead or blonde ore in paying quantities, even at the present low prices of our ores; and with a slight improvement in their marketable value these places, as well as

the mine as a whole, would show good results in the future. As the weather is now favourable for surface operations we have some men engaged in sinking a trial shaft on the south lode, in the eastern part of the property. This shaft is now about 5 fms. deep, and at the bottom the lode shows good indications, being a large, well defined, and yielding nice stones of lead ore. We shall sell during the current month 300 tons of blends and 100 tons of lead ore.

GAWTON.—George Rowe, Geo. Rowe, jun., June 11: The lode in the 117 fm. level, east of cross-cut, is showing a very kindly appearance, with arsenical muntic and ore to the value of 10½ per fathom. The lode in the stope in the back of the 117 is worth 14½ per fathom. No. 2 stope in the back of the same level (the 117) is worth 15½ per fathom. The lode in the 105 east, is carried 6 ft. wide, producing arsenical muntic and good quality copper ore to the value of 10½ per fathom. The lode in the stope in the bottom of the 105, east of cross-cut, is worth 8½ per fathom. The lode in the 95 east is without change, producing good stones of muntic and ore. We have resumed the drivage of the 70 on the south part of the lode, east of cross-cut, producing 6 tons of arsenical muntic per fathom. The new buildings are progressing as fast as the nature of the work will admit.

GOGINAN.—J. Kitto and Son, June 11: We are pleased to be able to inform you that satisfactory progress is being made in all our preliminary arrangements for an extensive and vigorous prosecution of the mine, and in a short time every part of our underground department, as well as at surface, will be in full operation. We have commenced clearing and repairing the 80, so as to communicate the same with the western shaft, which we shall resume sinking as soon as the new pumping-wheel is ready to work. The masons are getting on well with the wheel-pit for the new 50-ft. diameter water-wheel, and will have finished in a week from this date. A great portion of the wheel has already been delivered on the mine. We are getting pump rods, shafts, &c., ready for the western shaft, and hope to have all fixed and in order by the time the wheel is completed. Most of the buildings have been thoroughly repaired, and are now in good condition, and the principal roadways, shafts, &c., have all been put in good working order. There is not much change in the tribute department, but the pitches are yielding about an average quantity of ore, and the dressing is progressing satisfactorily.

GODDARD'S LEAD.—R. H. Vivian, June 15: The mine continues to open out well. The stope eastward from engine-shaft is opening up a very promising and blonde, as depth is attained; this is plainly seen all along the bottom of the level, which is now worth 8 cwt. of lead ore to the fathom. The water-course is now being raised 2 ft. 6 in. from the large lake to the water-wheel, so as to increase the power of the wheel for pumping. There is an ample supply of water for all the summer. On Saturday next about 8 tons of best quality lead will be sent off, which I believe, will command more than the average price of the district. I have every confidence in the mine.

GREAT DYLIFE.—Evan Evans, June 15: Setting Report: Llechwedd-du

The 125, west of Bradford shaft, is gradually improving every week.

We have to-day in the forestree a nice string of pure lead ore, worth about 1 ton per fm.

It will take us about three months of driving to come under the place where the ore was very good in the bottom of the 105, east of engine-shaft; set to two men, at 105s. per fathom. At the 45, west of engine-shaft, we have two men stripping.

This is improving. I believe it will make a productive stope both up and down; set at 70s. per fathom for stripping, and 47s. 6d. per fathom for stowing.

At the 15 west we have two men clearing and timbering the level to reach a piece of

productive ore ground that is a little further on.—New Lode: The rise for

Jeffries' shaft on this lode is up from the adit 10 fms. 4 ft.; it will take from

3 to 4 fms. yet to bring it through. The lode is very strong here, containing

much blonde, spotted with lead ore.—Tributaries: We have 10 pitches set on

tribute to 45 men as follows:—Four men, at 85s. per ton, eight men at 100s. per ton, 12 men at 105s. per ton, and 22 men at 110s. per ton.

GREAT HOLWAY.—W. T. Harris, June 16: Roskell's Shaft: The 110 cross-

south is being continued in expectation of intersecting other portions of the lode.

The ground consists of black chert of very congenial character, intersected by branches of carbonate of lime, in which some nice cubes of lead have been observed; a few feet further will definitely decide the question of there being any more lode before us or not.

We shall then open out east and west with every encouragement of success. The lode in the 82 west contains an increase of blonde and spar, which is a favourable change.—Braemore Shaft: No. 1 pitch, in bottom of 40, is producing 10 cwt. of lead and 1½ ton of blonde per fathom. No. 2 pitch is worth 2 tons of blonde per fathom.—Abercrombie Shaft: Two men at 105s. per fathom are working at the 55 east producing 1 ton lead and 1½ ton of blonde per fathom; a very encouraging feature has occurred here. Hitherto we have been troubled with water, but the lode is now so porous the water has disappeared, and better progress is being made, and prospects are very encouraging.—Office Shaft: Pitch, in bottom of 60 level, is producing 12 cwt. lead and 1½ ton of blonde per fathom.—Level Engine-shaft: The lode in the 60 east is presenting a very promising appearance. This being now sufficiently in advance of No. 3 we purpose putting up a rise to prove the value of the lode; at present it produces 1 ton of lead and 1 ton of blonde per fathom. Nos. 1 and 3 pitches continue to yield well, and stand in value equal to last report—8 tons of lead, or 90s. per fathom. Surface work progressing as usual. Dressing is also progressing with all possible speed.—Great Holway: The 110 west is being continued in expectation of intersecting other portions of the lode.

The stope in the back of this level, south of the shaft, is worth 15 tons of muntic per fathom and 3 tons of good copper ore, and I may say this is altogether as fine a looking lode as I have seen for some time; and there not being any ground taken away below this point, there is every reason to expect large returns will be met with at the lower levels and larger lodes. We are making very satisfactory progress in forking the water, and also in the clearing of the new shaft. We have a large quantity of ore broken, and are busy drawing the same to surface, which will be dressed with all dispatch, and made ready for sampling. All other operations are being pushed on with all speed.

GREAT HOLWAY.—Thos. Neill, June 15: The stope in the back of the 20 east, set to four men, at 6s. per ton and 5s. in 1/2, for one month—a beautiful-looking lode, and yields large quantities of muntic and copper. The stope in the back of the 20 west, to four men, at 6s. per ton; the lode is large, composed of rich muntic and copper, &c. The stope in the back of the 40 east, to four men, at 6s. per ton and 5s. in 1/2, for copper ore, the men to train same to shaft; this stope is further improved, and is worth 15 tons of muntic per fathom and 3 tons of good copper ore, and I may say this is altogether as fine a looking lode as I have seen for some time; and there not being any ground taken away below this point, there is every reason to expect large returns will be met with at the lower levels and larger lodes. We are making very satisfactory progress in forking the water, and also in the clearing of the new shaft. We have a large quantity of ore broken, and are busy drawing the same to surface, which will be dressed with all dispatch, and made ready for sampling. All other operations are being pushed on with all speed.

GREAT HOLYWELL.—Arthur Waters, June 15: There is no change in the drivage east of the main lode in the adit south of new shaft. We shall continue going east about 1 fm. further, when if no lode is found the main drivage south will be resumed.

LEAD ERA.—J. A. Ade, June 16: This week has passed without any observable change in the ground.

LEADHILLS.—Arthur Waters, June 15: Brow Vein: Grips' adit, going

north of Glengonar shaft, is in a nice looking quartz lode, 2 ft. wide, but without ore to value.

The pitch in back of this level, south of the shaft, is worth 15 cwt. per fm.

The 105 winze is being sunk below the 70 south is worth 30 cwt. per fm.

The 70 south is in a lode 4 to 5 ft. wide, but without ore to value.

The stope in back of this level south of Moffat's winze, is worth 30 cwt. per fm.

The stope in back of the 10, south of Jeffrey's shaft, is in a strong quartz lode, and lead ore, 5 to 7 ft. wide, worth 3 tons per fm.

The forecastle is up to the perpendicular of Brown's winze.

The said winze—

pumps 12 fms. below the 100. The water is in fork about 4 fms. below the 100. The pit work is working very satisfactorily. We are engaged in clearing the 100 from the old pump winze, west of Walls' shaft, eastward, in order to get to Walls' shaft. In clearing this level we find that we have a good lode of arsenical muriatic in the back, and as soon as the level is cleared to the shaft we shall commence at once to stop. We hope also very soon to reach the Flapjack lode at this level, where we expect to find a productive lode. The cross-cut driving south at the 70 Flapjack lode by two men. We are still meeting with small branches of muriatic and spots of copper ore, a winze sinking below the 70 west Flapjack lode by four men. Lode producing good arsenical muriatic and stones of copper ore. A winze sinking below the 70 east on Flapjack lode by four men. The lode is large, yielding arsenical muriatic of average quality, with a little copper ore. A rise in the back of the 70 west on Flapjack lode, by four men. We have a good branch of copper ore here, with every appearance of further improvement. A rise in the back of the 80, east of Bray's shaft, on the Holmibusch lode, by four men. The lode is improving in size and quality.—Stopping: A stop in the back of the 80, on the north part of the Holmibusch lode, by two men; lode yielding arsenical muriatic of rich quality. Two stopes in the back of the 80, east of Walls' shaft, by eight men; lode yielding good quality arsenical muriatic. Two stopes in the back of the 80, west of Bray's shaft, by 14 men; lode yielding arsenical muriatic of average quality. Three stopes in the back and bottom of the 60, west of Bray's shaft, by 18 men; the lode is producing rich arsenical muriatic. A stop in the back of the 70, west of Walls' shaft, by six men; lode yielding good arsenical muriatic, with stones of copper ore. Two stopes in the back of the 50, east and west of Walls' shaft, by six men; the lode yielding arsenical muriatic of average quality, and stones of copper ore. Four stopes in the back and bottom of the 40, west of Bray's shaft, by 15 men; lode yielding rich arsenical muriatic. Two stopes in the back of the 40, on the Flapjack lode, by 10 men; the lode is yielding good arsenical muriatic. The engine and air-compressor have arrived on the mine, and we shall erect the same as soon as possible.

NEW KITTY.—W. Vivian, June 16: We have cleared the engine-shaft down to the 14, but the level is so full of stuff that we cannot get into it until it is cleared out. We shall now commence to clear up the shaft below the 14. I am told the shaft is 22 fms. below the adit level. When we get to the bottom, of the shaft we can go on with the shaft work, and clear the levels at the same time.

NEW PENROSE.—John Curtis, June 15: The lode in the deep adit west of winze is about 18 in. wide, composed of muriatic, spar, &c., and a kindly looking lode, and letting out more water.

NEW WEST GOGINAN.—Absalom Francis, June 16: Poulter's shaft is now down 4 fms. from surface, and although we have not yet reached firm rock we have had some of the most beautiful ledgestones that I ever saw come from the Goginan lode, and I have every confidence that we shall meet with a great course of silver-lead ore at the 30 fm. level. We have prepared the timber for collaring up the shaft and every other purpose, and have taken off the crank for pumping and are about replacing the cog-wheel for drawing and pumping, and making every possible arrangement for a quick and an effectual trial. Our progress up to this has been most satisfactory in every way.

NEW WHEAL PEELOR.—W. T. White, June 14: The points in operation are progressing favorably, and I am pleased to say we shall cut the lode in the cross-cut driving north from west on shaft; we have cut into it 18 in., and thus far it is a kindly looking lode, and possessed of a most congenial quartz and prian. The lode underlies south, and I have no doubt when opened on (which I purpose doing) will open up something good. There is no change in this eastern part of the mine, but I am expecting soon to have the pleasure of reporting the intersection of a good lode in the cross-cut driving now. In this part, looking at the position of the mine in connection with Wheal Peelor and West Peelor, I really cannot see why it should not prove equally productive.

NEW WYE VALLEY.—J. Kitto and Son, June 11: Since our last report we have intersected the north part of the lode at the 55, and as our principal shoots of ore ground have generally been found both east and west of the point of intersection, we have suspended the driving of the cross-cut for the present—although the greater part of the lode is yet standing intact—and have commenced driving east, hoping soon to reach the productive ground. As yet we have only opened on the lode for about 15 ft. long and 5 ft. wide, and as far as seen in this small space its composition and general character are decidedly promising for producing large quantities of ore, being composed of good-looking quartz, carbonate of lime, and lead and blonde ores, which lead us to expect, when properly tested, it will yield exceptionally good results. For the present we intend driving the level both east and west as fast as possible on this part of the lode, and hereafter to cross-cut the veins to its full width at the most promising and convenient point. In consequence of an increase of water in the winze below the 45 we have been compelled to suspend the sinking until the water is drained by the extension of the 55, which we hope will take place in a few days, when we shall resume working this point, and continue it with all available speed, to assist in the development of the bottom of the mine. During the past month we have opened a good piece of ore ground at the intermediate level, and we are glad to state the present end still looks kindly, and will produce about 1 ton of ore per fathom. There is no change in any other part of the mine worthy of note.

NORTH BUSY UNITED.—John James, June 14: The lode in the 15, driving east, is 2 ft. wide, producing a little tin, but not enough to value. In the 10 west the lode is a 'ger' and looking a little more kindly as we are nearing the east and west lodes. In the 10 east the lode is getting out of the influence of the flukan; now 1 ft. wide, leading to a 2 ft. wide, spar and muriatic. The lode in winze sinking below this is split in branches, producing saving work for tin. The slope in the back of this level is 1 ft. wide, as last reported. We have commenced to sink a winze below the adit level, on south lode, to get down on the tin in the run.

NORTH D'ERE-BY MOUNTAIN.—R. H. V. Ian, June 15: Fair progress is being made in sinking the shaft; we shall soon gain the footwall portion of the lode, where there is every probability of our finding the lode of more value for lead than we are now sinking in. The lode maintains its former value—about 15 ton of lead ore to the fathom. The north-eastern end continues to open up a good lode of lead and blonde; if anything, it has rather improved since you were down last week to the meeting. I have not seen a more kindly lode in the mine, and I consider it will be a good lode of lead ore under this level.

NORTH GRFEN HUITH.—W. Vipond, June 10: There is no change of importance to report from the level this week; the bed-sare going very well again now. The new level is still open cutting in peat and clay; the men are making very good progress with this.

NORTH HERDFOOT.—T. Trelevene, June 16: The 80 continues just as last reported. I have set to the men to clear and secure this level at 27s. 6d. per fathom. I hope they will continue to make good progress. The ground appears to be standing in the bottom, and we break some good stones of lead ores as we went on, and I think there is ground in the bottom which can be taken away at a very fair profit. The stopes still continues to yield fully 7 cwt.s. of silver-lead ore per fathom. We have fixed a waterfall at this level, and carried the pipes into the end, which is giving this place excellent ventilation. The 59 end is a ill unproductive. The lode is composed of flukan, quartz, muriatic, &c. I have put two of the men from this end to stopes in the back; it is yielding 5 cwt.s. of lead ores per fathom. We shall also fix a waterfall to ventilate this level. The masons will get the cusher-house up to the beams this week. All other work progressing satisfactorily.

NORTH HN. LEAD.—Thomas Tonkin, June 17: The drivage east in the coal sills at this level is still hard and slow to work, but contains a fair admixture of lead ore. The tribute ground yields about 8 cwt.s. of ore to the fathom. The tribute stope, 15 west section, yields 8 cwt.s. of ore to the fathom; the ground is easy. The yield of ore in the flats, east section, is very variable, though change for the better seems likely. The tribute stopes above the 47, east section, yields 12 cwt.s. of ore to the fathom, and the west section stopes yield 5 cwt.s. to the fathom in one place; at another place a slide has disturbed the lode, and the yield will be still more settled ground is reached. We are rising near the 6in. shaft into the Quarry Hazl. silt, where it is likely some goad stope ground will be opened out. One water supply is very limited, owing to the persistent continuation of dry weather, hence the dressing operations are retarded.

PARYS C. OPERP.—T. Mitchell, June 15: The driving of the 30 south with the boring machinery is going on very well, and fair progress is being made. The foremast is producing occasional stones of copper ore, and the ground is everything that can be desired for the production of copper. The lode in the end, driving west of cross-cut, is mixed up with sulphur and copper ore; we have about 1/2 ton in a fathom of the latter, and the end looks very promising. The end driving east of cross-cut at this place is also producing branches of copper ore of good quality. The ground here also presents a promising appearance and we cannot tell how soon we might strike upon a good lode of ore. The driving of the 30, east of cross-cut on the Carrig-y-doll lode, continue to yield about 1/2 ton of ore per fathom. There is more lode standing towards the north side of this place, which we purpose stripping down when the end has advanced a little further on. We have some men stripping down the lode west of the cross-course near this place, at which place we are getting some good ore, and the lode is looking as if it was going to open out a good width again. The lode was very productive over this point at one time. The tribute pitches are looking much as usual.

PANDORA.—H. Nottingham, June 16: The bargains throughout the mine are yielding as last reported. The bottom of the engine-shaft is looking better, but we cannot do much at sinking whilst we are changing and repairing the machinery. We are now busily engaged putting on a fresh pair of sweep-wheels by the big wheel and new buckets in the raft-wheel of the crusher; we are working at this overtime, and hope to have these things in good order, and the wheel jumping again by to-morrow night. Other work progressing satisfactorily.

PANTHURION.—J. Kitto and Son, June 10: The 12 fm. levels have now been driven sufficiently far from the shaft both east and west to enable us to resume the sinking, and this we are prepared to do as quickly as possible, and in a few days from this date shall be fairly underway sinking for another new level. The 12 ends fair now about 5 fms. each way from the shaft, making fully 10 fms. opened on the course of the lode, all of which has been through very ground that will pay well for stripping, and there is a good paying lode in the bottom of the shaft to resume sinking upon. Altogether, we are pleased to say the prospects are most favourable, and the mine, so far, has opened out in such a manner as to leave no doubt that it will ere long become a very productive and profitable undertaking. The engine and other machinery is in good working condition, and is, so far, equal to our requirements.

PENHALLE AND BARTON.—J. Evans, June 16: The excavation for the bob stand is completed, and we are now engaged in building loadings for the balance bob; this, as well as the whin-conc., will be completed by the end of the week. The whins are being made with all possible speed. We have communicated the adit shaft with adit in Barton Mine, and, within a very few days, this adit will be put in thorough repair. Everything is being done preparatory to setting the engine to work on the Barton Mine. I am much pleased to inform you that we are opening up a beautiful lode in the Barton adit end east, 3 ft. wide, and rich in tin throughout.

PENHALLES.—S. Bennett, R. Harris, June 11: There is not much change to notice in the 70 cross-cut south. The 60 east is worth 6d. per fathom. The 55 east is worth 7d. per fathom. The 45 west is worth 10d. per fathom.

POLROSE.—W. Pennot, June 15: The 100 is set to drive east and west of the cross-cut, to eight men, at 5d. per fathom the month. In the eastern end we are getting near the sparsy cross-course, to the west of which the lode in the 90 is considerably improved. The 90 west is set to four men, at 5d. per fathom the month; the lode is fully 3 ft. wide, and of most promising character, composed of spar and spar, with strong muriatic spots of copper ore, and a little tin. We may now be at 5 fathoms further to drive this end to reach the western cross-

course. The 90 cross-cut south is set to six men, at 5d. 5s. per fathom the month. There is no change here calling for remark, beyond that the ground is slightly mineralised. In the western adit the men have holed the shaft with the back of the level, and are now engaged clearing the stuff from the level going east. I hope by the end of the week they will have made sufficient progress for us to dial the ground.

PENNANT.—W. T. Harris, June 7: At your request I have inspected this mine, and now beg to hand you my report:—The engine-shaft is sunk to the 113 yard level. A considerable amount of work and excavations have been done at all intermediate levels between the 40 and the bottom of the mine. The principal product at present is carbonate and sulphate of barytes, although rich deposits of lead ore from time to time have been discovered; in fact, in all the operations upon the lode lead ore in irregular quantities have been found, thus showing very favourable characteristics, and affording great encouragement for prosecuting the great lode in depth, as is generally the result where lodes of like composition prevail, lead ore is very remunerative quantities have been found; as a proof of this, several old and profitable mines could be mentioned in which the lodes bear striking resemblance, and in depth lead takes the place of barytes, and thereby become great and prolific properties. The 60 yard level has been driven west 150 yards and east about the same distance. At 90 yards east of shaft the main lode junctions with a caunter lode; at this point rich carbonate was found, and from which enormous quantities have been returned. In the back a stope is in progress, and regular returns made; and, judging by the extent of lode before them, continuous supplies may be calculated upon for some time. A stope in the roof of this level, west of shaft, also produces carbonate and sulphate of barytes in paying quantities. The 80 yard level has been driven west 135 yards, and is now in progress, with very promising prospects; several rich branches of lead ore have been discovered in the driving, and particularly good in the bottom of the level. Two stopes east of shaft are yielding good quantities of mineral, and there is a large section of ground in reserve. A cross-cut has been driven out south to intersect the caunter lode, but is suspended, and within short distance of accomplishing the object for which it was started. I strongly recommend that the water should be drawn from the bottom level. The pitwork and all requirements being ready in position, you might then resume driving west, and east if funds would allow. The additional cost would not be large, and I have strong confidence in early success—that in course of development satisfactory results would follow in the discovery of valuable deposits of lead ore.

PRINCE OF WALES.—S. Roberts, G. Rowe, June 15: In Watson's engine-shaft, which is down 3 fms. below the 90, the men continue on their contract of sinking the whole lift; no change worthy of any remark. The 90 end east is set to six men, at 8d. 10s. per fathom; lode at present small, but has a kindly appearance, and producing some good copper ore. Rise in back of this end set to four men, at 6d. 10s. per fathom; lode 2 ft. wide, producing rich stones of tin and copper ores, and has every indication of getting into the run of tin and copper gone down in the level above. Stope from No. 2 rise in this level set to two men, at 5d. per fathom; lode 4 ft. wide, saving work for tin and copper. The 90 end west, set to six men, at 10d. per fathom; lode near 5 ft. wide, worth 15d. per fathom for tin. Tribune pitch in the back of this end set to four men, at 10d. per fathom; lode 4 ft. wide, worth 8d. per fathom.

RED ROCK.—J. Kitto and Son, June 13: The 23, driving east on the south lode, produces 15 cwt. of lead ore per fathom, and the general character of the lode is very promising for continued productions. This level is now being driven in new or unexplored ground, and seeing that it has turned out very much better, both as regards the length and value of the ore ground, than the one above, and that the forebay is still in a good paying lode, it will plainly be seen that the result of our operations at this point is very satisfactory, and that our prospects are very good for the future. The new winze being sunk below this level (23) also looks well; in fact, the lode is more valuable and of better composition in the bottom of the winze than when we commenced sinking it, being worth, for the length taken (9 ft.), 1½ tons of lead ore per fathom. This is very encouraging, as it shows that the lode is improving as depth is obtained, and it leads us to anticipate opening a good run of productive ground at the next level. In order to work this part of the mine properly, we are making preparations for sinking a new shaft from surface, which will come down through the run of ore on the top of the winze just referred to, which is being carried sufficiently large to take pumping and winding appliances. We hope to commence this work very soon, and accomplish it in a cheap and expeditious manner. The stopes are producing about the usual quantity of ore. We have this day sold to Messrs. Neville, Drury, and Co. 30 tons of lead ore for 8d. 19s. per ton.

ROMAN GRAVELS.—Arthur Waters and Son, Jan. 16: The lode in the 123 north and south of shaft is without change to notice since last week. The lode in the 110, north of old shaft, is 2½ ft. wide, and worth 2 tons per fathom. The 110, south of new shaft, is in a lode 5 ft. wide, worth 1½ ton per fathom. The lode in the 95 south is 4½ ft. wide, worth 2 tons per fathom. The 80, south of shaft, on east portion of the lode, is worth 1 ton per fathom. The cross-cut west towards footwall part of the lode, is being driven as fast as possible. The winze at this level, south of Belton's, on middle part of Roman lode, is now down 8 fms., and worth 2½ tons per fathom. The lode in the 65 south, on hanging wall part, is 3 ft. wide, worth quite 7 tons per fathom. The footwall part of the lode is worth 1½ ton per fathom. The 50 south is worth 2½ tons per fathom. All the other point in the mine are without change to notice since last week. We have sold 100 tons of lead ore for 9d. 15s.

SORTRIDGE.—W. Skewis, June 15: In the shaft on the Gossan lode there is a splendid rich looking gossan from 5 to 6 ft. wide, with portions of black copper and muriatic. In the shaft in the tin lode we are breaking some very good stuff for tin, and dividing the parcel to-day for sampling to-morrow, when Capt. Thomas will be present. Not far from mine in time to answer your wire of this afternoon.

SOUTH CONDURROW.—Wm. Rich, Wm. Williams, H. King, June 15: The lode in the 93 end, east of King's, carries a little native copper, but not enough to value; the ground is easy for driving. The stope in the back of this level is worth 10d. per fathom. The 80 end east has a promising appearance, and is worth 6d. per fathom. The rise in the back of this level is worth 12d. per fathom. The cross-cut west towards footwall part of the lode, is being driven as fast as possible. The winze at this level, south of Belton's, on middle part of Roman lode, is now down 8 fms., and worth 2½ tons per fathom. The lode in the 65 south, on hanging wall part, is 3 ft. wide, worth quite 7 tons per fathom. The footwall part of the lode is worth 1½ ton per fathom. The 50 south is worth 2½ tons per fathom. All the other point in the mine are without change to notice since last week.

SOUTH DARREN.—Henry James, June 15: We shall next week commence to sink the shaft to the 150, and from present appearances I expect to have a good lode all the way down. We are stripping down the lode in the side of the 120 east, which is about 6 ft. wide, composed of good quartz, carbonate of lime, killas, lead, and copper ores—a good paying lode; after the lode is taken down up to the end driving will be resumed. In the western end of this level we had a blast in the lode to-day, and broke some good stones of lead ore. I am pleased to say the lode in the 110 east is equal to last week's valuation—½ ton of lead and 2 tons of copper ores per fathom. Two stopes in back and side of this level, west of shaft, are each worth 2½ tons lead ore per fathom. The western end is being driven with all speed by the side of the lode to get under the winze being sunk from the 100 level; fair progress is being made. In the winze sinking below the 100 the lode is of a good ore bearing character; the part of the lode we are carrying in the sinking will produce 1 ton of lead ore per fathom. The engine is at work assisting the dressing, as we have not sufficient water. The 35 tons of silver-lead ore sold to Messrs. Goodhart and Co. on the 10th inst., realising 503d. 2s. 4d.

SOUTH DEVON UNITED.—W. H. Martin, June 15: On Saturday last at our pay we set the following bargains:—To drive the 70 east end, by three men and three boys, at 10d. per fathom. I am pleased to say a favourable change is coming in the lode. In a short drayage I think we shall get through the unproductive bar of lead. The 70 west to drive, by eight men, at 6d. 10s. per fathom; the lode is harder, and consequently we have put two more men to push forward the end to intersect the great cross-course with all speed. The lode is of a beautiful nature, and in some parts yields rich tin. Seeing that the lode is improving as it nears the cross-course, there are good indications for the junction of the two lodes. We have taken the men from the 50 west to drive the 80 west. By stopping the bottom of the 70 we discovered another part of the lode going down north of the level. We purpose to open on the north part to prove its run and value; to drive, by four men, at 7d. per fathom. The 50 east to drive, by two men and two boys, at 5d. per fathom, and 10s. in 1/2 tribute. In the last two months the lode has greatly improved in size, and opening up tribute ground. The No. 3 rise, by two men, at 6d. 10s. per fathom. We shall sample on Tuesday next about 145 tons of copper ore.

WEST WHEAL COATES UNITED.—W. H. Martin, June 15: On Saturday last at our pay we set the following bargains:—To drive the 70 east end, by three men and three boys, at 10d. per fathom. I am pleased to say a favourable change is coming in the lode. In a short drayage I think we shall get through the unproductive bar of lead. The 70 west to drive, by eight men, at 6d. 10s. per fathom; the lode is harder, and consequently we have put two more men to push forward the end to intersect the great cross-course with all speed. The lode is of a beautiful nature, and in some parts yields rich tin. Seeing that the lode is improving as it nears the cross-course, there are good indications for the junction of the two lodes. We have taken the men from the 50 west to drive the 80 west. By stopping the bottom of the 70 we discovered another part of the lode going down north of the level. We purpose to open on the north part to prove its run and value; to drive, by four men, at 7d. per fathom. The 50 east to drive, by two men and two boys, at 5d. per fathom, and 10s. in 1/2 tribute. In the last two months the lode has greatly improved in size, and opening up tribute ground. The No. 3 rise, by two men, at 6d. 10s. per fathom. We shall sample on Tuesday next about 145 tons of copper ore.

WEST WHEAL COATES UNITED.—J. Gilbert, June 16: The lode in the 155, driving west of Taylor's shaft, is 3½ ft. wide, composed of spar, white iron, and occasionally stones of copper ore. The lode in the 145, driving west of shaft, is split in several branches, the leading part is 1½ ft. wide and yielding stones of copper ore. In the 105, driving west of Richard's shaft, the lode is 4 ft. wide, composed of spar, which is spotted with copper ore, and letting out water very freely. The lode in the winze sinking in the bottom of the 95, west of shaft, is 3 ft. wide, and still yielding 2½ tons of ore per fathom. The stope in the bottom of this level, east

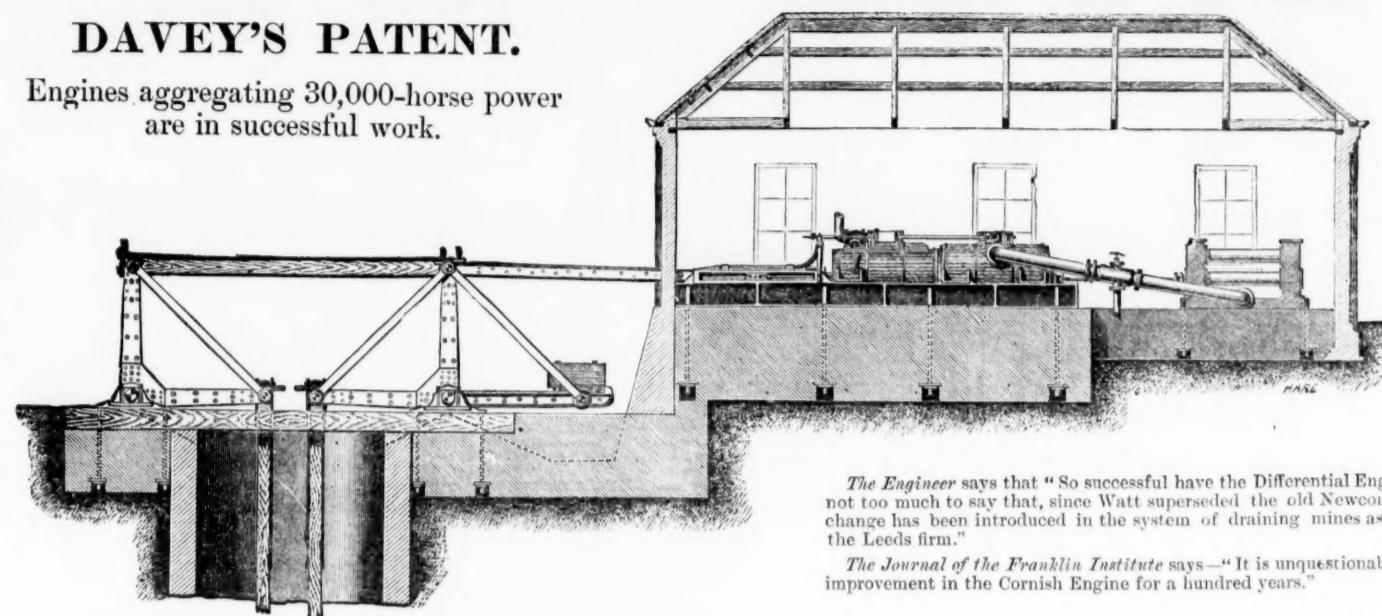
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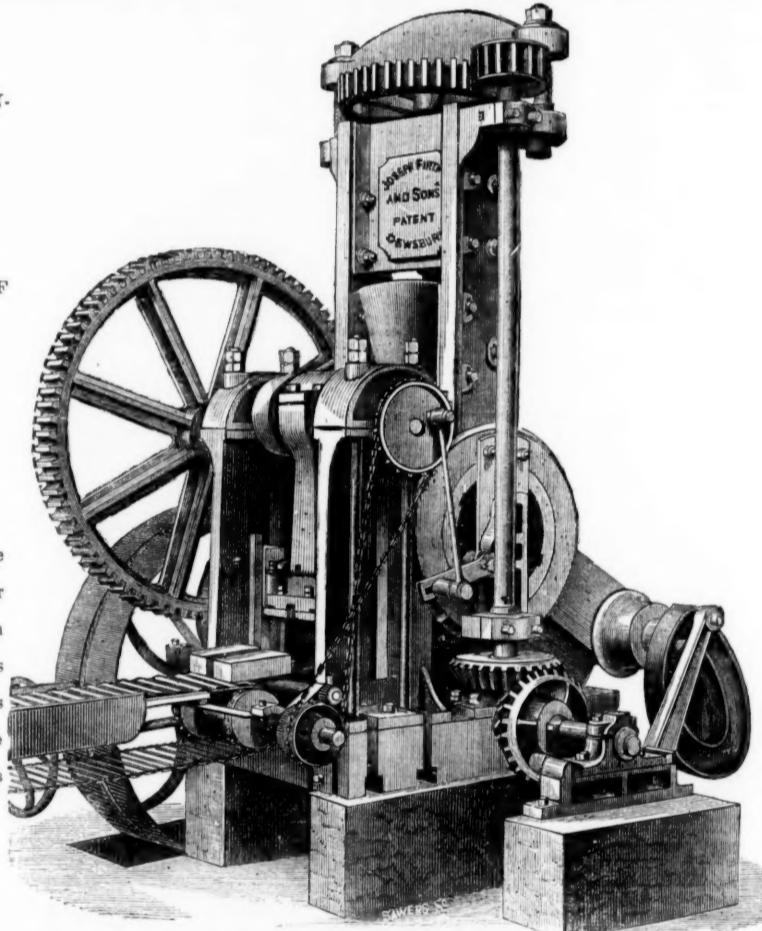
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The Patent Machinery can be seen at work daily at the Works of the Patentees, Webster Hill, Dewsbury, or Crowborough Station, Sussex, L. B. and S. C. Railway.

Their Patent Gas Kiln can also be seen in operation at their Dewsbury Works. It possesses, amongst others, the following advantages, viz.:—Economy in Fuel, Rapidity and Quality of Work, even Distribution of Heat, and Total Consumption of Smoke.

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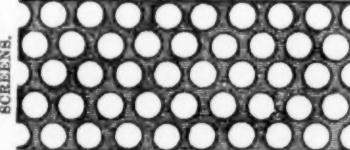
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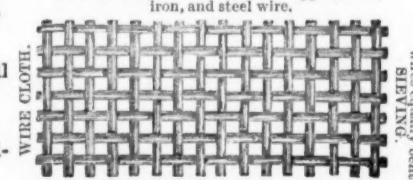


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During this time it has been so improved and developed as to make it without doubt the best Percussive Rock Drill offered for Tunnelling, Mining, or Quarrying Work.

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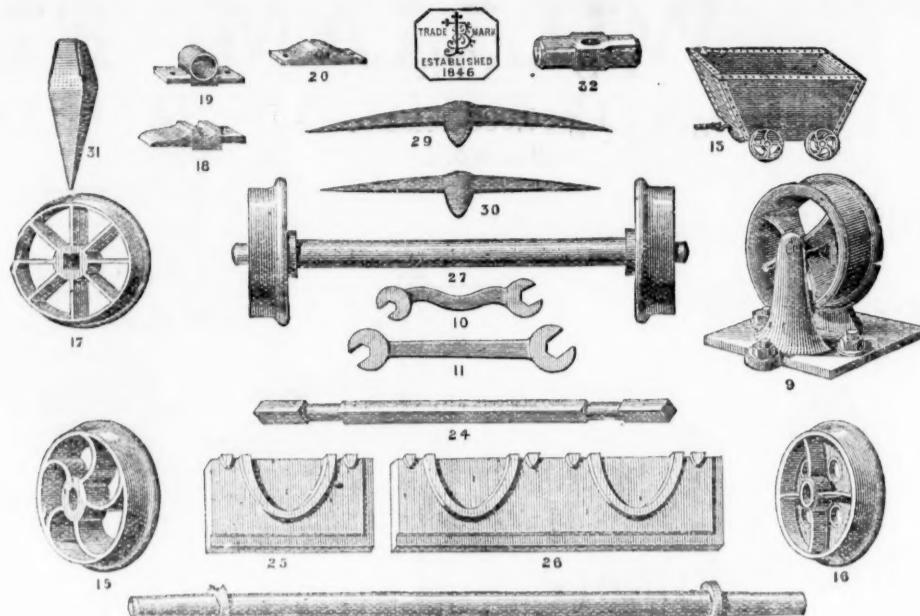
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SOW AND REAP.—The June number of this periodical well maintains its former character. Referring to the improving prospects, it is remarked that the impending change is of commanding interest to investors. The stream of industry brought once more into common sense, cheerful, profitable channels will again strain to the uttermost the monied resources of the kingdom. The raw material with which the bowels of the earth are filled will be sought with renewed vigour, and will yield commensurately increased returns. The idle will find employment. The investor will be largely recompensed. At present prices, good tin and copper properties in Cornwall are doing well. With each future improvement in trade they will do better, until the fabled profits of bygone days are once more realised. Few industries in the past have a better profit record than the mines of Cornwall, and in the future there are none so full of promise. A more favourable time than the present for investment in good mining properties was never known.

GLYCERINE.—Notwithstanding the low price which now prevails for almost every description of raw produce and manufactured goods there are a few articles which form notable exceptions. Perhaps one of the most remarkable of these is refined glycerine, which within the last two years has advanced from about 30/- to 130/- per ton avoirdupois for 30° Beams. This enormous advance is due partly to increased consumption, diminished production, and the influence of speculation working on a market devoid of stocks. In view of the present position of the article, and the prospect of a continuance of high prices for a considerable time to come, the attention of soap-makers is now being turned to the utilisation of their waste "leys," and various new processes for recovering the glycerine contained in these liquors have lately been tried with more or less successful results. Apart from minor impurities waste soap "leys" are generally found to contain glycerine, carbonate of soda or caustic soda, chloride of sodium, gelatine, and albumen. One of the processes for recovering the glycerine which promises to be the most economical and the most successful begins with concentrating the liquor until the salts contained therein begin to crystallise. The liquid is then cooled, and filtered to rid it of gelatine and albumen. It is afterwards made to absorb carbonic acid, which precipitates bicarbonate of soda, and which is separated from the liquor in the usual way. After undergoing this process the liquor is then made to absorb gaseous hydrochloric acid until what remains of carbonate of soda has been converted into chloride, and further until all, or almost all, the chloride of sodium has been precipitated, and separated from the liquor in the usual manner. Arrived at this stage the liquor contains water, glycerine, and hydro-chloric acid. The acid is then evaporated entirely, and absorbed in water for using afresh. The delute glycerine remaining can be purified by filtering it through animal charcoal, or by concentrating and distilling it in the usual way.

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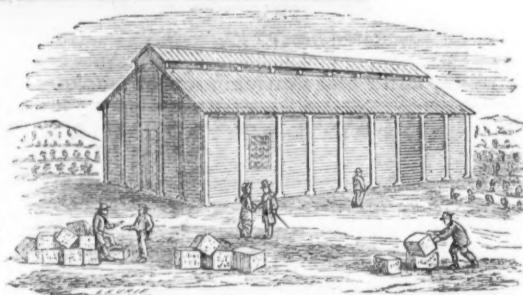
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THE DYNAMO-ELECTRIC MACHINE SUPERSedes EVERY KNOWN BATTERY.

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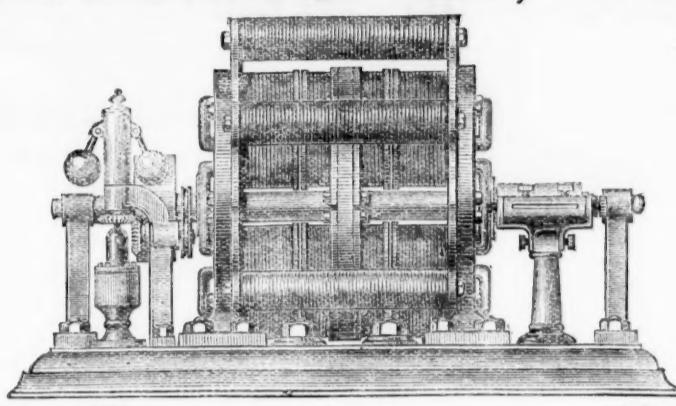
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MACHINE IS REQUIRED.

The "Elmore" Patent Dynamo-Electric Machine,

FOR DEPOSITING

NICKEL, SILVER, BRASS, BRONZE, COPPER, ETC., AND FOR ELECTROTYPEING.

REPEATED COMPARATIVE TRIALS have proved that this is the MOST POWERFUL MACHINE IN THE MARKET, that it NEVER REVERSES CURRENT, and that it is very easily worked without special knowledge.

COMPLETE OUTFITS OR MATERIALS FOR NICKEL-PLATING, SILVER-PLATING, ELECTROTYPEING, TINNING, BRONZING, &c.

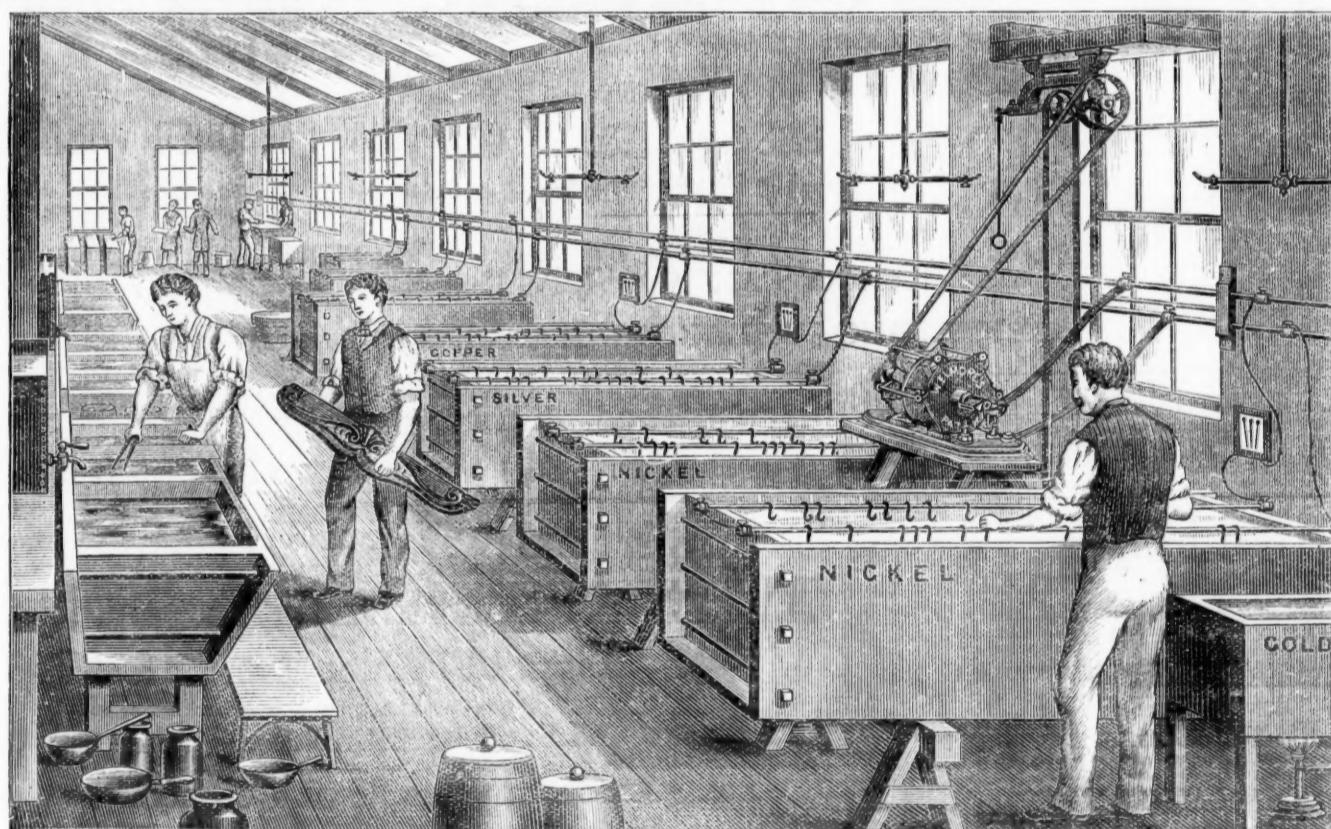
TO TIN-PLATE MANUFACTURERS AND GALVANIZERS.

The attention of TIN-PLATE MANUFACTURERS AND GALVANIZERS is respectfully directed to the NEW PROCESSES of manufacturing Tin-Plates by depositing the Metal by the current of an "ELMORE'S PATENT" DYNAMO-ELECTRIC MACHINE through aqueous solutions in contradistinction to the old processes of dipping in molten metal.

THE ELECTRO DEPOSITED METAL IS PERFECTLY REGULINE in character, and the electric current may be so EASILY CONTROLLED as to coat with a MERE FILM OF METAL, OR A DEPOSIT OF ANY DESIRED THICKNESS. The great economy in the cost of plant and cost of production will be immediately self-evident. As nearly the whole of the existing plant can be used in the new process, the cost of altering the system will be comparatively trifling.

DYNAMO-ELECTRIC MACHINES

SPECIALLY CONSTRUCTED FOR DEPOSITING ANY METAL IN ANY QUANTITY.



The above represents an Electro-plating Works, in which an "ELMORE" PATENT DYNAMO-ELECTRIC MACHINE is being used for the deposition of Nickel, Silver, Copper, Bronze, Brass, Gold, Tin, Zinc, &c., from their Solutions.

From "INDUSTRY."
"By means of the dynamo-electric machine of Mr. William Elmore, the perfection of nickel-plating is obtained. Dynamo-electricity—that is, electricity produced by motive power—presents advantages which cannot be claimed by any galvanic battery known. Not only is the current produced at a far less cost, but it can be so regulated or controlled that the smallest article can be separately coated by a dynamo-electric machine, capable (in its full application) of depositing from 25 lbs. to 20 lbs. of silver per hour. It is a remarkable fact, moreover, that metals can be deposited from their solutions by dynamo-electricity in less than one-third of the time occupied by the ordinary battery in producing the same result. The quality of the deposit, in regard to its smoothness and reguline character, is greatly in favour of dynamo-electricity."

"Having had considerable experience in dynamo-electric machines, Mr. W. Elmore has been careful to note the defects and irregularities which some of the less skilfully constructed machines have presented, and thus he has been enabled to produce a really practical and effective machine, of great power, which may be thoroughly depended upon as being capable of giving the most satisfactory results for all purposes of electro-deposition, including gilding, silvering, brassing, nickelizing, and electrotyping."

"The advantages of dynamo-electricity in the important art of electrotyping are beyond estimation. When it is known that a fine, clear, deposit (or 'shell') of copper, 800 ft. square feet, can be obtained by a dynamo-machine in less than three hours, without 'pin-holes,' and other defects common to battery deposits, it will be at once seen that the ordinary battery is effectually and unmistakably superseded."

"One of the most useful purposes to which dynamo-electricity can be applied is the production of chemically pure nickel solutions, and salts of nickel, for the electro-deposition of the metal. The vast amount of elec-

tricity generated in a dynamo-machine enables one to dissolve nickel and other metals in their own solvents, far more economically, and in greater purity than by the ordinary method of treating metals. Electrical power obtained by the ordinary galvanic battery would be far too expensive for this purpose. The solutions formed by the aid of dynamo-electricity are not only purely and economically made; but they can be produced in far less time, and with comparatively little trouble and attention. To Mr. Elmore is due the honour of having introduced into this country the process of making pure nickel solutions and salts by means of dynamo-electricity. The boon he has thus conferred upon a large industrial class we need not dilate upon."

From "THE IRONMONGER."
"A still further improvement in the deposition of metals has been recently obtained by the introduction of the dynamo-electric machine of Mr. Wm. Elmore, which is in reality electricity produced by motive power. By this means the current is obtained at a much less cost, and I have seen it regulated to such a nicely that the smallest article could be separately coated in a full-sized vat. The deposit is also effected in about one-third of the time taken by a galvanic battery, and for smoothness and regularity of surface is greatly in favour of the dynamo process, which may be known from the fact that all Mr. Elmore's competitors, both in London and elsewhere, are fast adopting his machine in preference to the old process. He has, in addition, supplied it to many large firms throughout the country for electrotyping purposes, and the reports received from them are gratifying to the inventor. Mr. Elmore is also the author of an interesting little work on the subject, which may be read with interest by those who contemplate entering into what is fast becoming an important industry."

WILLIAM ELMORE, 91, BLACKFRIARS ROAD, LONDON, S.E.

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THE GRAND PRIZE, THE TRIPLE AWARD.

Gold Medal, Silver Medal, and Honourable Mention awarded at the Paris Exhibition, in competition with all the World,
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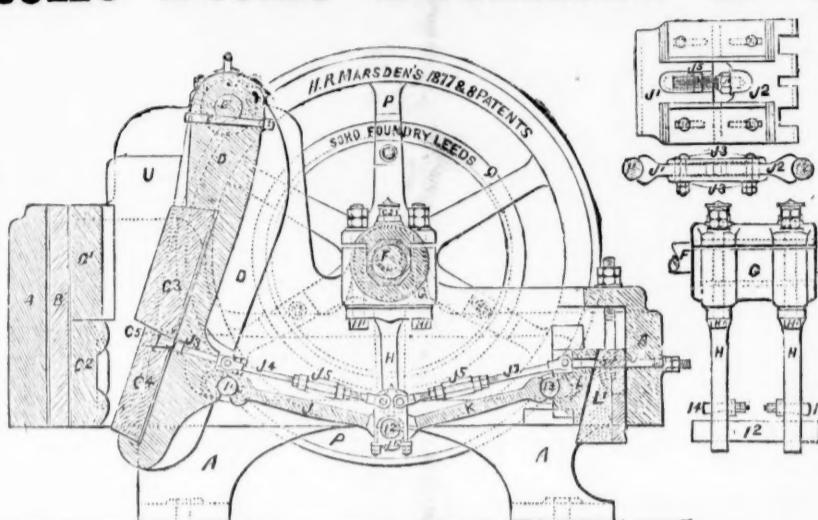
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PRIZE MEDALS.

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Patentee of the New Patent Special Fine Crusher, for reducing Gold Quartz, Lead Ore, and all kinds of Materials to an im-palpable powder. Awarded the FIRST SILVER MEDAL by the Cornwall Mining Institute. Particulars of results, &c., on application.



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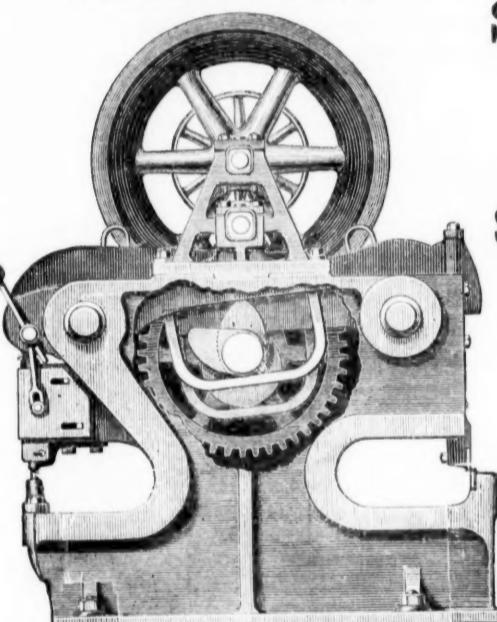
We are, yours faithfully,
JOHN TAYLOR AND SONS.
H. R. Marsden, Esq.,
Soho Foundry, Meadow-lane, Leeds.

St. John del Rey Mining Company (Limited).
A SAVING OF FIFTY-FIVE HANDS BY THE USE OF
ONE MEDIUM-SIZED MACHINE.

BLAKE'S STONE BREAKER.—Statement made by the Managing Director of the St. John del Rey Mining Company, Mr. John Hockin, with regard to six months' practical working of Blake's Stone Breaker, affording facility for judging of the relative economy of machine and hand labour in this kind of work, and also of the cost of getting the Stone Breaker to work in difficult places. The price paid to Mr. Marsden for the machine referred to by Mr. Hockin was £180, and adding to this the cost of engine, carriage, and fixing, the aggregate cost to the company of the Breaker in working order was £500. By this outlay the company is enabled to dispense with the labour of 55 people, the value of which is £800 per annum. The cost of working the machine could not be more than the wages of about five men (the machine requires but one man to feed it, so that the rest would be for engineer, fuel, oil, &c.), and allowing for interest on outlay and for renewal when necessary, the saving must be enormous.—Mining Journal.

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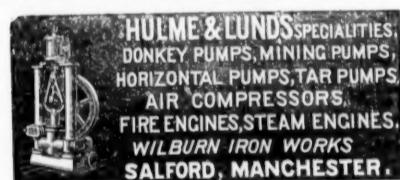
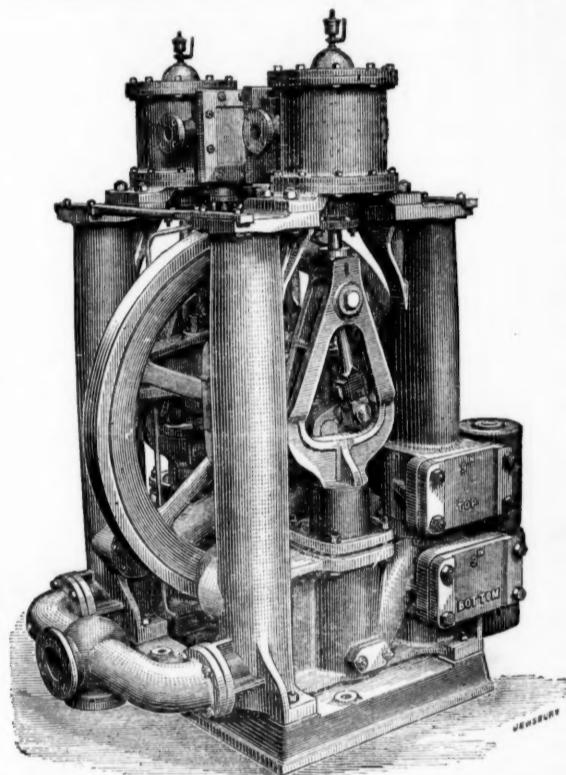
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Air-Compressing Machinery,

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